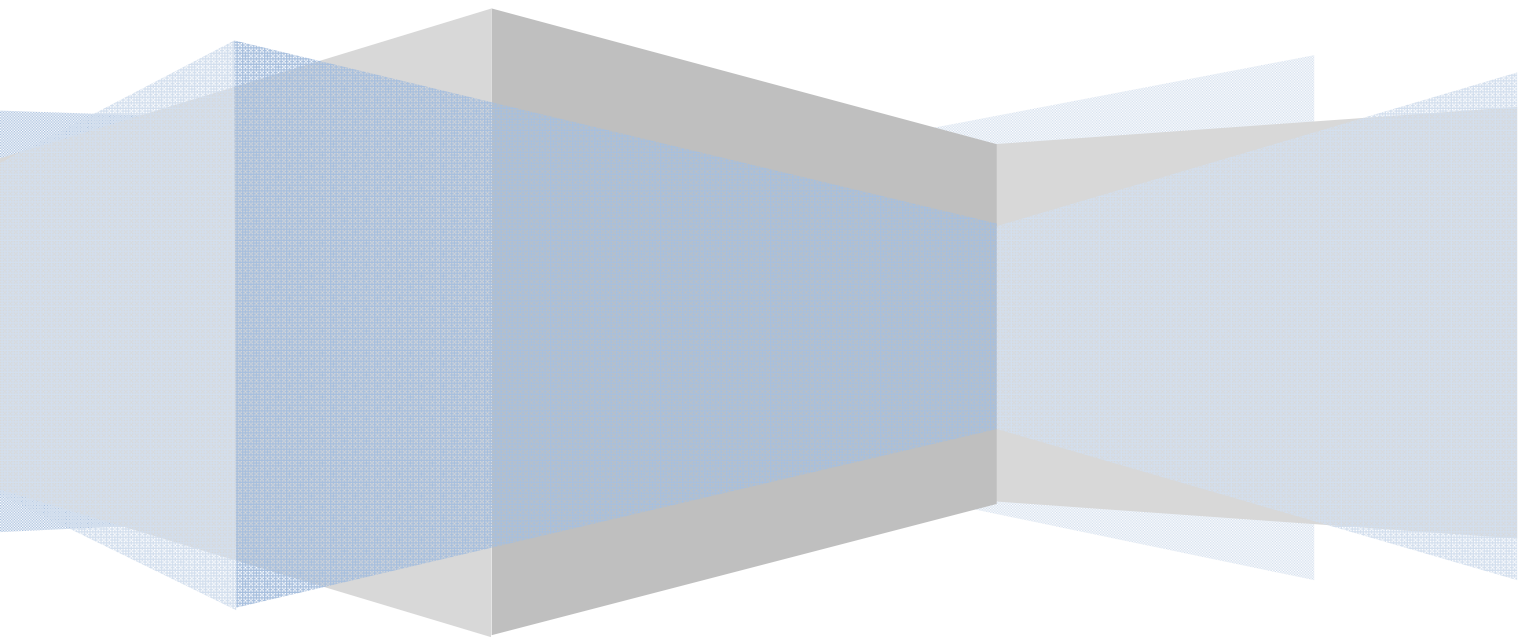


BASIC MATHEMATICS WORK BOOK FOR UP-LEVEL CLASSES

BASIC MATHEMATICS PROGRAMME MODULE



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1. 1 TO 100 NUMBERS

I. A) FILL THE EMPTY BOXES IN THE TABLE WITH SUITABLE NUMBERS

1		3		5		7		9	10
	12		14		16		18		20
21		23		25		27		29	
	32		34		36		38		40
41		43		45		47		49	
	52		54		56		58		60
61		63		65		67		69	
	72		74		76		78		80
81		83		85		87		89	
	92		94		96		98		100

B) FILL THE EMPTY BOXES WITH CORRECT NUMBERS

1			4			7			10
		13			16			19	
	22			25			28		
31			34			37		39	
	42			45			48		
51			54			57			60
		63			66			69	
	72			75			78		
81			84			87			90
		93			96			99	100

2. ADDITION OF ONE DIGIT NUMBERS

A) VERTICAL TYPE

$\begin{array}{r} 5 \\ +8 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ +7 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ +7 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ +0 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ +6 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ +3 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ +9 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ +3 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ +5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ +3 \\ \hline \end{array}$
$\begin{array}{r} 1 \\ +9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ +2 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ +3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ +0 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ +8 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ +2 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ +5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ +4 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ +2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ +7 \\ \hline \end{array}$

B) HORIZONTAL TYPE

$9+9=$	$9+8=$	$4+4=$	$8+0=$	$6+9=$
$5+4=$	$1+8=$	$5+0=$	$5+6=$	$4+0=$
$4+7=$	$5+8=$	$6+8=$	$3+5=$	$3+7=$
$6+3=$	$8+5=$	$4+7=$	$2+4=$	$5+2=$

C) FILL THE BLANKS WITH CORRECT NUMBER

$__+0=10$	$__+3=13$	$3+__=7$	$5+__=13$	$__+9=13$
$__+5=14$	$__+2=6$	$__+1=10$	$__+5=12$	$8+__=16$
$__+8=9$	$__+2=8$	$9+__=17$	$__+3=9$	$1+__=7$
$__+6=12$	$__+2=4$	$__+5=13$	$5+__=10$	$9+__=16$

3. ADDITION OF TWO DIGIT NUMBERS

A) VERTICAL TYPE

$\begin{array}{r} 54 \\ +34 \\ \hline \end{array}$	$\begin{array}{r} 76 \\ +12 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ +61 \\ \hline \end{array}$	$\begin{array}{r} 45 \\ +33 \\ \hline \end{array}$	$\begin{array}{r} 75 \\ +21 \\ \hline \end{array}$
$\begin{array}{r} 30 \\ +33 \\ \hline \end{array}$	$\begin{array}{r} 20 \\ +32 \\ \hline \end{array}$	$\begin{array}{r} 53 \\ +44 \\ \hline \end{array}$	$\begin{array}{r} 90 \\ +35 \\ \hline \end{array}$	$\begin{array}{r} 76 \\ +12 \\ \hline \end{array}$
$\begin{array}{r} 47 \\ +30 \\ \hline \end{array}$	$\begin{array}{r} 68 \\ +21 \\ \hline \end{array}$	$\begin{array}{r} 52 \\ +11 \\ \hline \end{array}$	$\begin{array}{r} 47 \\ +21 \\ \hline \end{array}$	$\begin{array}{r} 60 \\ +21 \\ \hline \end{array}$
$\begin{array}{r} 42 \\ +52 \\ \hline \end{array}$	$\begin{array}{r} 67 \\ +21 \\ \hline \end{array}$	$\begin{array}{r} 61 \\ +21 \\ \hline \end{array}$	$\begin{array}{r} 68 \\ +20 \\ \hline \end{array}$	$\begin{array}{r} 69 \\ +00 \\ \hline \end{array}$

B) HORIZONTAL TYPE

$25+42=$	$97+31=$	$50+33=$	$40+10=$	$96+12=$
$73+10=$	$52+37=$	$14+65=$	$39+47=$	$83+13=$
$32+42=$	$79+18=$	$65+30=$	$53+14=$	$42+24=$
$21+15=$	$43+52=$	$46+52=$	$66+21=$	$62+21=$

C) FILL THE EMPTY SPACES WITH APPROPRIATE NUMBERS

$32+ \underline{\quad} =94$	$20+ \underline{\quad} =35$	$\underline{\quad} +39=53$	$91+ \underline{\quad} =97$	$86+ \underline{\quad} =96$
$\underline{\quad} +52=87$	$33+ \underline{\quad} =96$	$\underline{\quad} +18=59$	$\underline{\quad} +54=82$	$\underline{\quad} +29=40$
$84+ \underline{\quad} =98$	$\underline{\quad} +42=68$	$\underline{\quad} +30=82$	$15+ \underline{\quad} =72$	$14+ \underline{\quad} =53$
$\underline{\quad} +15=85$	$69+ \underline{\quad} =93$	$28+ \underline{\quad} =75$	$\underline{\quad} +62=76$	$\underline{\quad} +41=79$

4. ADDITION OF THREE DIGIT NUMBERS

A. VERTICAL TYPE

$\begin{array}{r} 888 \\ +100 \\ \hline \end{array}$	$\begin{array}{r} 647 \\ +222 \\ \hline \end{array}$	$\begin{array}{r} 871 \\ +111 \\ \hline \end{array}$	$\begin{array}{r} 894 \\ +101 \\ \hline \end{array}$	$\begin{array}{r} 486 \\ +413 \\ \hline \end{array}$
$\begin{array}{r} 948 \\ +121 \\ \hline \end{array}$	$\begin{array}{r} 926 \\ +360 \\ \hline \end{array}$	$\begin{array}{r} 426 \\ +661 \\ \hline \end{array}$	$\begin{array}{r} 347 \\ +121 \\ \hline \end{array}$	$\begin{array}{r} 714 \\ +133 \\ \hline \end{array}$
$\begin{array}{r} 277 \\ +612 \\ \hline \end{array}$	$\begin{array}{r} 364 \\ +110 \\ \hline \end{array}$	$\begin{array}{r} 575 \\ +120 \\ \hline \end{array}$	$\begin{array}{r} 677 \\ +300 \\ \hline \end{array}$	$\begin{array}{r} 216 \\ +651 \\ \hline \end{array}$
$\begin{array}{r} 222 \\ +722 \\ \hline \end{array}$	$\begin{array}{r} 738 \\ +230 \\ \hline \end{array}$	$\begin{array}{r} 399 \\ +100 \\ \hline \end{array}$	$\begin{array}{r} 400 \\ +278 \\ \hline \end{array}$	$\begin{array}{r} 340 \\ +119 \\ \hline \end{array}$

B) HORIZONTAL TYPE

295+634=___	504+233=___	431+704=___	230+ 596=___
137+ 366=___	492+295=___	646+221=___	518+112=___
535+303=___	604+652=___	445+ 306=___	709+1246=___
610+ 195=___	740+815=___	248+973=___	401+1378=___
745+166=___	149+ 193=___	484+528=___	213+ 490=___
337+636=___	595+ 172=___	109+603=___	884+640=___

C) FILL THE BLANKS WITH SUITABLE NUMBERS

___+189=96	513+___=1985	731+___=1269;	___+881=1093
864+___= 902	___+667= 948	___+669=996	238+___=590
___+776=1775	135+___=931	442+___= 576	141+___= 242
394+___= 818	364+___=778	___+872=1038	___+556=1153

TRY THIS !!

$\square + \bigcirc = 53$	$\bigcirc =$
$\triangle + \triangle = 36$	$\triangle =$
$\triangle + \bigcirc = 45$	$\square =$

5. ADDITION OF FOUR DIGIT NUMBERS

A) VERTICAL TYPE

$\begin{array}{r} 9987 \\ +1832 \\ \hline \end{array}$	$\begin{array}{r} 2729 \\ +2957 \\ \hline \end{array}$	$\begin{array}{r} 6120 \\ +1430 \\ \hline \end{array}$	$\begin{array}{r} 7239 \\ +8892 \\ \hline \end{array}$	$\begin{array}{r} 2250 \\ +1518 \\ \hline \end{array}$
$\begin{array}{r} 5359 \\ +7026 \\ \hline \end{array}$	$\begin{array}{r} 1714 \\ +1659 \\ \hline \end{array}$	$\begin{array}{r} 7847 \\ +5766 \\ \hline \end{array}$	$\begin{array}{r} 7956 \\ +1056 \\ \hline \end{array}$	$\begin{array}{r} 7270 \\ +1307 \\ \hline \end{array}$
$\begin{array}{r} 2358 \\ +5591 \\ \hline \end{array}$	$\begin{array}{r} 3338 \\ +9386 \\ \hline \end{array}$	$\begin{array}{r} 6336 \\ +5363 \\ \hline \end{array}$	$\begin{array}{r} 2263 \\ +2178 \\ \hline \end{array}$	$\begin{array}{r} 4202 \\ +3679 \\ \hline \end{array}$
$\begin{array}{r} 8653 \\ +7104 \\ \hline \end{array}$	$\begin{array}{r} 7064 \\ +1038 \\ \hline \end{array}$	$\begin{array}{r} 5963 \\ +1539 \\ \hline \end{array}$	$\begin{array}{r} 9534 \\ +7432 \\ \hline \end{array}$	$\begin{array}{r} 5051 \\ +3685 \\ \hline \end{array}$

B. HORIZONTAL

$4313+5019=$	$4270+5249=$	$5868+4475=$	$6299+2412=$
$4664+4858=$	$1104+1650=$	$6456+3232=$	$6627+2721=$
$5823+5651=$	$4560+3362=$	$1945+12358=$	$2816+1004=$
$9860+8072=$	$9654+1849=$	$7420+8388=$	$5432+1036=$
$4726+1510=$	$2788+1467=$	$8250+7773=$	$3258+4237=$

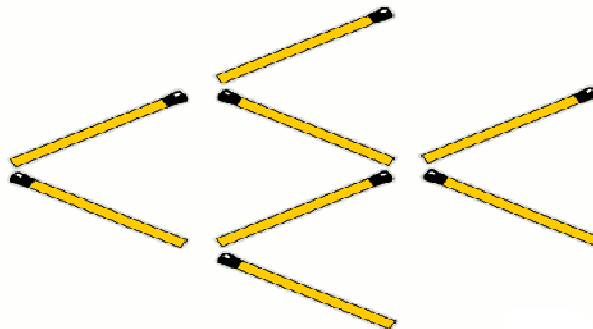
C) FILL THE BLANKS WITH APPROPRIATE NUMBERS.

$3850+ \underline{\hspace{1cm}} = 8993$	$5151+ \underline{\hspace{1cm}} = 7268$	$8598+ \underline{\hspace{1cm}} = 11655$
$\underline{\hspace{1cm}} + 3770 = 10365$	$8978+ \underline{\hspace{1cm}} = 10926$	$9735+ \underline{\hspace{1cm}} = 13868$
$4440+ \underline{\hspace{1cm}} = 6926$	$\underline{\hspace{1cm}} + 1114 = 5184$	$\underline{\hspace{1cm}} + 4696 = 14518$
$1872+ \underline{\hspace{1cm}} = 4946$	$7954+ \underline{\hspace{1cm}} = 14626$	$\underline{\hspace{1cm}} + 1377 = 8645$

6. WORD PROBLEMS (ADDITIONS)

❖ SOLVE THE FOLLOWING PROBLEMS

- 1) Siddu has 10 bags. He buys 10 more bags. How many bags does he have in all?
- 2) Naresh has 10 cups. He buys 7 more cups. How many cups does he have in all?
- 3) Tarun has 8 bags. Sidd has 7 bags. How many bags do they have altogether?
- 4) Syam has 9 blocks. He buys 7 more blocks. How many blocks does he have in all?
- 5) John has 9 pens. Tom has 3 pens. How many pens do they have altogether?
- 6) Satyam has 3 pens. He finds 6 more pens. How many pens does he have in all?
- 7) Ramesh has 7 pencils. He buys 7 more pencils. How many pencils does he have in all?
- 8) There are 11 boys and 10 girls in a library. How many kids are there altogether?
- 9) Navya has 4 books. His sister gave 7 more. How many books in all?
- 10) Akhila has 7 books. He buys 8 more books. How many books does he have in all?
- 11) Kavya has 7 pencils. He finds 11 more pencils. How many pencils does he have in all?
- 12) There are 4 boys and 3 girls in a park. How many kids are there altogether?
- 13) Gopi has 10 books. He finds 9 more books. How many books does he have in all?
- 14) Ganesh has 6 pens. He buys 8 more pens. How many pens does he have in all?
- 15) Bhargav has 9 cups. Jeff has 10 cups. How many cups do they have altogether?
- 16) Pavan has 9 books. He buys 5 more books. How many books does he have in all?
- 17) Srinivas has 10 pencils. He finds 11 more pencils. How many pencils does he have in all?
- 18) Sumanth has 7 bags. Tom has 8 bags. How many bags do they have altogether?
- 19) Jhansi has 8 bags. Rudrama has 10 bags. How many bags do they have altogether?
- 20) John has 11 pens. He finds 10 more pens. How many pens does he have in all?



TRY THIS!!! Change any three match sticks, and make the fish, swim into opposite direction..

7. SUBTRACTION OF ONE DIGIT NUMBERS

A. VERTICAL TYPE

$\begin{array}{r} 2 \\ -2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -7 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -8 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ -5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ -3 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ -1 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -2 \\ \hline \end{array}$

B. HORIZONTAL TYPE

7-5=	2-2=	8-4=	8-8=	1-1=
3-1=	9-9=	7-3=	5-5=	4-4=
6-6=	7-2=	6-1=	5-5=	4-1=
7-4=	8-4=	6-3=	3-2=	8-4=

C. FILL THE BLANKS

_ -2=7	___-2=3	7-__=5	___-9=0	___-5=4
___-4=5	___-2=3	___-1=1	2-___=1	2-___=1
___-4=1	___-3=2	___-2=0	___-5=0	4-___=0

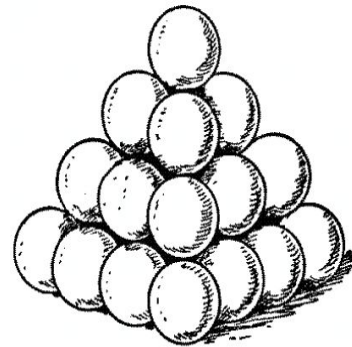
❖ **TRY THIS : HOW MANY LADDUS ARE THERE???**

Solve this..

+ + = 30

Fill the boxes using
(1, 3, 5, 7, 9, 11, 13, 15)

U can also repeat the numbers.



8. SUBTRACTION OF TWO DIGIT NUMBERS

A. VERTICAL TYPE

$\begin{array}{r} 60 \\ -40 \\ \hline \end{array}$	$\begin{array}{r} 44 \\ -32 \\ \hline \end{array}$	$\begin{array}{r} 16 \\ -15 \\ \hline \end{array}$	$\begin{array}{r} 51 \\ -31 \\ \hline \end{array}$	$\begin{array}{r} 42 \\ -40 \\ \hline \end{array}$
$\begin{array}{r} 37 \\ -23 \\ \hline \end{array}$	$\begin{array}{r} 70 \\ -50 \\ \hline \end{array}$	$\begin{array}{r} 50 \\ -40 \\ \hline \end{array}$	$\begin{array}{r} 55 \\ -32 \\ \hline \end{array}$	$\begin{array}{r} 50 \\ -10 \\ \hline \end{array}$
$\begin{array}{r} 62 \\ -31 \\ \hline \end{array}$	$\begin{array}{r} 43 \\ -11 \\ \hline \end{array}$	$\begin{array}{r} 89 \\ -19 \\ \hline \end{array}$	$\begin{array}{r} 89 \\ -58 \\ \hline \end{array}$	$\begin{array}{r} 33 \\ -21 \\ \hline \end{array}$
$\begin{array}{r} 21 \\ -10 \\ \hline \end{array}$	$\begin{array}{r} 66 \\ -41 \\ \hline \end{array}$	$\begin{array}{r} 96 \\ -64 \\ \hline \end{array}$	$\begin{array}{r} 36 \\ -33 \\ \hline \end{array}$	$\begin{array}{r} 22 \\ -12 \\ \hline \end{array}$

B. HORIZONTAL TYPE

19-13=	73-52=	44-11=	48-25=	45-14=
33-13=	99-89=	83-12=	89-34=	57-37=
41-41=	79-77=	79-31=	46-43=	67-56=
23-13=	95-11=	19-13=	13-11=	17-14=

C. FILL THE BLANKS WITH SUITABLE NUMBERS

60-____=40	____-30=12	98-____=41	86-____=25	____-30=36
69-____=56	66-____=50	16-____=11	11-____=0	63-____=51
52-____=51	____-20=21	____-10=88	80-____=70	____-80=7
61-____=1	28-____=12	____-1=70	____-46=52	15-____=12
____-14=2	86-____=31	25-____=7	92-____=12	13-____=0
31-____=15	23-____=3	37-____=23	____-10=3	40-____=14

9. SUBTRACTION OF THREE DIGIT NUMBERS

A. VERTICAL TYPE

$\begin{array}{r} 419 \\ -202 \\ \hline \end{array}$	$\begin{array}{r} 448 \\ -332 \\ \hline \end{array}$	$\begin{array}{r} 245 \\ -225 \\ \hline \end{array}$	$\begin{array}{r} 191 \\ -130 \\ \hline \end{array}$	$\begin{array}{r} 250 \\ -210 \\ \hline \end{array}$
$\begin{array}{r} 402 \\ -201 \\ \hline \end{array}$	$\begin{array}{r} 955 \\ -253 \\ \hline \end{array}$	$\begin{array}{r} 970 \\ -910 \\ \hline \end{array}$	$\begin{array}{r} 807 \\ -103 \\ \hline \end{array}$	$\begin{array}{r} 843 \\ -312 \\ \hline \end{array}$
$\begin{array}{r} 254 \\ -111 \\ \hline \end{array}$	$\begin{array}{r} 608 \\ -468 \\ \hline \end{array}$	$\begin{array}{r} 567 \\ -435 \\ \hline \end{array}$	$\begin{array}{r} 420 \\ -110 \\ \hline \end{array}$	$\begin{array}{r} 414 \\ -114 \\ \hline \end{array}$
$\begin{array}{r} 124 \\ -104 \\ \hline \end{array}$	$\begin{array}{r} 613 \\ -612 \\ \hline \end{array}$	$\begin{array}{r} 518 \\ -314 \\ \hline \end{array}$	$\begin{array}{r} 746 \\ -512 \\ \hline \end{array}$	$\begin{array}{r} 232 \\ -100 \\ \hline \end{array}$

B. HORIZONTAL TYPE

478-311=	850-540=	472-172=	415-305=	354-233=
502-302=	638-305=	662-432=	121-21=	861-651=
584-223=	182-80=	375-322=	586-465=	295-104=
595-134=	452-321=	842-410=	265-115=	491-131=

C. FILL THE BLANKS WITH CORRECT NUMBERS

_____-115=411	631-_____=421	_____-500=200	_____-341=436	_____-40=404
455-_____=202	631-_____=331	_____-242=524	588-_____=345	_____-710=270
774-_____=423	306-_____=201	_____-403=405	_____-273=501	_____-111=206
800-_____=300	573-_____=272	908-_____=804	378-_____=153	407-_____=304
_____-348=110	984-_____=203	813-_____=663	632-_____=200	358-_____=245

10. SUBTRACTION OF FOUR DIGIT NUMBERS

HORIZONTAL TYPE SUBTRACTIONS

$4381-2201=$ $9492-4201=$ $8759-2105=$ $7012-992=$ $8727-7293=$

$9774-3292=$ $3349-2104=$ $4296-3103=$ $1774-1503=$ $6751-3701=$

$6236-1104=$ $5962-2602=$ $3483-3192=$ $7339-4204=$ $2430-1201=$

$5400-2200=$ $2061-1991=$ $2692-1701=$ $2144-1004=$ $1744-1202=$

FILL THE BLANKS WITH CORRECT NUMBERS

$4792- \underline{\hspace{2cm}} = 2583$ $\underline{\hspace{2cm}} - 3443 = 740$ $\underline{\hspace{2cm}} - 4262 = 794$ $\underline{\hspace{2cm}} - 4344 = 3644$

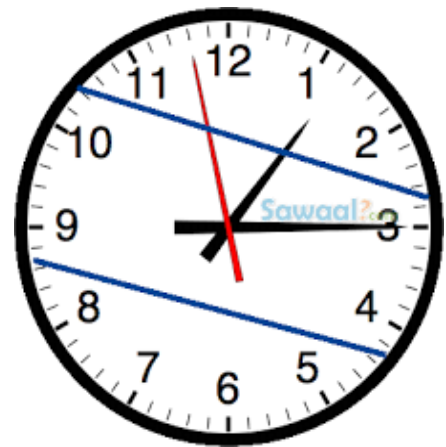
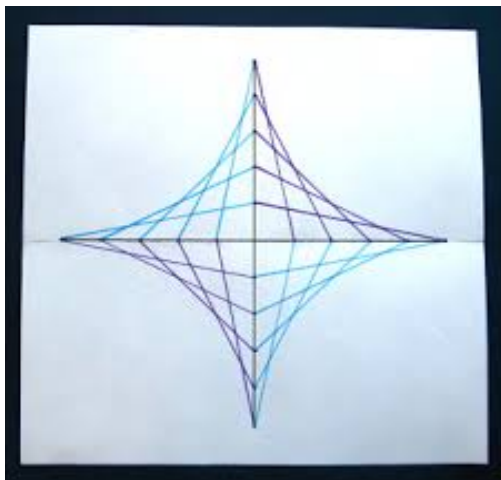
$7668- \underline{\hspace{2cm}} = 3163$ $\underline{\hspace{2cm}} - 3263 = 5218$ $8427- \underline{\hspace{2cm}} = 4431$ $\underline{\hspace{2cm}} - 5489 = 2426$

$\underline{\hspace{2cm}} - 4720 = 115$ $\underline{\hspace{2cm}} - 8446 = 749$ $\underline{\hspace{2cm}} - 3997 = 1020$ $9702- \underline{\hspace{2cm}} = 1100$

$\underline{\hspace{2cm}} - 6098 = 1596$ $5790- \underline{\hspace{2cm}} = 4030$ $3444- \underline{\hspace{2cm}} = 2075$ $9078- \underline{\hspace{2cm}} = 1289$

$1220- \underline{\hspace{2cm}} = 53$ $\underline{\hspace{2cm}} - 2102 = 7027$ $\underline{\hspace{2cm}} - 1784 = 7875$ $\underline{\hspace{2cm}} - 3631 = 2915$

❖ **WHAT IS THE SPECIALITY IN THESE FIGURES ?**



11. SUBTRACTION – SOME SPECIAL CASES

(Zero in units place/tens/ hundreds/.....)

330 -202 -----	360 -116 -----	270 -225 -----	450 -310 -----	250 -210 -----
650 -273 -----	940 -253 -----	970 -910 -----	840 -103 -----	810 -302 -----
540 -111 -----	670 -468 -----	560 -435 -----	420 -110 -----	410 -104 -----
408 -202 -----	404 -132 -----	205 -125 -----	901 732 -----	507 -210 -----
402 -201 -----	905 -253 -----	909 -870 -----	807 -103 -----	803 -312 -----
504 -111 -----	608 -468 -----	607 -435 -----	209 -110 -----	404 -114 -----
7360 -5101 -----	2398 -94 -----	9299 -3095 -----	8002 -5992 -----	7821 -4691 -----
1287 -1004 -----	7088 -5003 -----	2360 -1101 -----	5748 -3392 -----	7076 -6006 -----
5150 -4101 -----	2115 --8 -----	3238 -3094 -----	7335 -5202 -----	8301 -6991 -----
2358 -2004 -----	7962 -801 -----	9663 -8192 -----	2500 -2390 -----	9290 -7090 -----
7300 -5101 -----	2300 -1294 -----	9200 -3095 -----	8900 -5992 -----	7800 -4691 -----
1200 -1004 -----	7700 -5003 -----	3600 -1101 -----	5700 -3392 -----	7600 -6006 -----

5100 -4101	2100 --1253	3800 -3094	3500 -2020	8300 -6991
2300 -2004	7900 -1801	6300 -5192	2500 -2390	2900 -1090
7060 -5101	2098 -1194	9090 -3095	8020 -5992	7020 -4691
1080 -1004	7080 -5003	2060 -1101	5040 -3392	7070 -6006
5050 -4101	2010 --1848	3030 -2094	7030 -5202	3090 -6991
2050 -2004	7060 -1801	9060 -8192	2090 -1390	9090 -7090
7000 -5101	2000 -1494	9000 -3095	8000 -5992	8000 -4691
5000 -1004	6000 -5003	2000 -1101	5000 -3392	7000 -6006
5000 -4101	2000 --1368	3000 -2094	7000 -5202	8000 -6991

3	4	1	2
4	2	3	1

			3
3	2	4	
	4	3	2
2			

12. MIXED ADDITIONS AND SUBTRACTIONS

465 +554 -----	974 +332 -----	569 -362 -----	292 +806 -----	492 +155 -----
904 -656 -----	259 +699 -----	480 -324 -----	134 +384 -----	526 -517 -----
772 -499 -----	504 -353 -----	165 +729 -----	969 +511 -----	761 -614 -----
839 +700 -----	856 +211 -----	214 +408 -----	331 +679 -----	367 +788 -----
949 +223 -----	937 -351 -----	387 +989 -----	146 -121 -----	384 -375 -----
2988 +3280 -----	9528 -310 -----	7902 -335 -----	1581 +9940 -----	1334 -102 -----
1621 +3437 -----	6607 -992 -----	8614 -7374 -----	6648 -5227 -----	4522 -1368 -----
9447 +1289 -----	1969 -723 -----	1536 -846 -----	9452 -3981 -----	5158 -409 -----
2898 +3309 -----	1668 +6847 -----	1842 -444 -----	9349 +2452 -----	3000 -1405 -----
4694 -273 -----	4575 +4939 -----	3694 +8233 -----	4648 -3318 -----	4473 -3410 -----

SOLVE THIS!

A gardener planted 10 trees in five rows. Each row had four trees in it. How did he do this?

13. WORD PROBLEMS (+/-)

- 1) Ravi bought 6 bananas. He ate 5 bananas. How many does Ravi have now?
- 2) Syam has 6 bags. He buys 4 more bags. How many bags does he have in all?
- 3) Laxman bought 12 candies. He ate 10 candies. How many does he has now?
- 4) Siddu has 11 pencils. His brother takes away 4 of his pencils. How many pencils does Siddu have left?
- 5) Syam has 6 bags. Susheel has 5 bags. How many bags do they have altogether?
- 6) Tharun has 10 pencils. He finds 11 more pencils. How many pencils does he have in all?
- 7) Subbu has 11 pens. His brother takes away 2 of his pens. How many pens does Subbu have left?
- 8) Sirish has 9 pens. Sirish gives his sister 5 pens. How many pens does Sirish have ?
- 9) Joythi has 4 pencils. Samantha has 12 pencils. How many pencils do they have altogether?
- 10) Triveni has 7 bananas. Triveni ate 5 of them. How many bananas does Triveni have left?
- 11) Jevan has 7 books. He finds 12 more books. How many books does he have in all?
- 12) There are 12 boys and 3 girls in a library. How many kids are there altogether?
- 13) Swarup has 10 blocks. He buys 5 more blocks. How many blocks does he have in all?
- 14) Lokesh has 5 cups. He buys 10 more cups. How many cups does he have in all?
- 15) Nithin bought 8 candies. He ate 5 candies. How many does Nithin have now?
- 16) Nikhil has 4 pencils. Nikhil gives his sister 2 pencils. How many pencils does Nikhil have left?
- 17) Thomas has 10 pens. He buys 8 more pens. How many pens does he have in all?
- 18) Jeevan has 4 pencils less than Akhil. Akhil has 10 pencils. How many does Jeevan have?
- 19) There are 10 boys and 10 girls in a park. How many kids are there altogether?
- 20) There are 11 boys and 7 girls in a room. How many kids are there altogether?

CAN YOU MAKE THE SHAPE ?



14. MULTIPLICATION TABLES FROM 2 TO 10

Write the multiplication tables from 2 to 10

Ex: 2 X 0, 2X1, 2X2, 2X3, 2X4, 2X5 , 2X6, 2X7, 2X8, 2X9, 2X10, 2X11

0X2, 1X2, 2X2, 3X2, 4X2, 5X2, 6X2, 7X2, 8X2, 9X2, 10X2, 11X2... ..

15. MULTIPLICATION

A) MULTIPLICATION BY 1 DIGIT NUMBERS

$\begin{array}{r} 98 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 48 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 65 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 95 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 99 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 56 \\ \times 2 \\ \hline \end{array}$
$\begin{array}{r} 16 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 84 \\ \times 10 \\ \hline \end{array}$	$\begin{array}{r} 70 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 43 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 82 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 60 \\ \times 10 \\ \hline \end{array}$
$\begin{array}{r} 22 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 30 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 26 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 58 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 91 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 60 \\ \times 0 \\ \hline \end{array}$
$\begin{array}{r} 80 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 30 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 20 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 90 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 40 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 70 \\ \times 7 \\ \hline \end{array}$
$\begin{array}{r} 50 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 60 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 40 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 60 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 20 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 50 \\ \times 2 \\ \hline \end{array}$

B. MULTIPLICATION BY 2 DIGIT NUMBERS

$\begin{array}{r} 8318 \\ \times 18 \\ \hline \end{array}$	$\begin{array}{r} 3364 \\ \times 40 \\ \hline \end{array}$	$\begin{array}{r} 3282 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 8393 \\ \times 30 \\ \hline \end{array}$	$\begin{array}{r} 9044 \\ \times 36 \\ \hline \end{array}$	$\begin{array}{r} 3027 \\ \times 47 \\ \hline \end{array}$
$\begin{array}{r} 5014 \\ \times 31 \\ \hline \end{array}$	$\begin{array}{r} 6157 \\ \times 17 \\ \hline \end{array}$	$\begin{array}{r} 8438 \\ \times 39 \\ \hline \end{array}$	$\begin{array}{r} 2716 \\ \times 33 \\ \hline \end{array}$	$\begin{array}{r} 5218 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2465 \\ \times 2 \\ \hline \end{array}$
$\begin{array}{r} 9933 \\ \times 36 \\ \hline \end{array}$	$\begin{array}{r} 4062 \\ \times 46 \\ \hline \end{array}$	$\begin{array}{r} 1313 \\ \times 33 \\ \hline \end{array}$	$\begin{array}{r} 3649 \\ \times 42 \\ \hline \end{array}$	$\begin{array}{r} 1110 \\ \times 48 \\ \hline \end{array}$	$\begin{array}{r} 1522 \\ \times 22 \\ \hline \end{array}$
$\begin{array}{r} 6505 \\ \times 24 \\ \hline \end{array}$	$\begin{array}{r} 4557 \\ \times 43 \\ \hline \end{array}$	$\begin{array}{r} 8452 \\ \times 24 \\ \hline \end{array}$	$\begin{array}{r} 7925 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 5039 \\ \times 19 \\ \hline \end{array}$	$\begin{array}{r} 2292 \\ \times 46 \\ \hline \end{array}$

$$\begin{array}{r} 703 \\ \times 20 \\ \hline \end{array}$$

$$\begin{array}{r} 793 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 781 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 897 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} 501 \\ \times 60 \\ \hline \end{array}$$

$$\begin{array}{r} 846 \\ \times 80 \\ \hline \end{array}$$

$$\begin{array}{r} 755 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 958 \\ \times 40 \\ \hline \end{array}$$

C. MULTIPLICATION BY 3 DIGIT NUMBERS

$$\begin{array}{r} 2501 \\ \times 618 \\ \hline \end{array}$$

$$\begin{array}{r} 5846 \\ \times 894 \\ \hline \end{array}$$

$$\begin{array}{r} 7557 \\ \times 218 \\ \hline \end{array}$$

$$\begin{array}{r} 4958 \\ \times 855 \\ \hline \end{array}$$

$$\begin{array}{r} 4067 \\ \times 872 \\ \hline \end{array}$$

$$\begin{array}{r} 8507 \\ \times 494 \\ \hline \end{array}$$

$$\begin{array}{r} 6756 \\ \times 997 \\ \hline \end{array}$$

$$\begin{array}{r} 8529 \\ \times 510 \\ \hline \end{array}$$

$$\begin{array}{r} 1385 \\ \times 422 \\ \hline \end{array}$$

$$\begin{array}{r} 3567 \\ \times 973 \\ \hline \end{array}$$

$$\begin{array}{r} 8306 \\ \times 202 \\ \hline \end{array}$$

$$\begin{array}{r} 3355 \\ \times 227 \\ \hline \end{array}$$

$$\begin{array}{r} 1173 \\ \times 318 \\ \hline \end{array}$$

$$\begin{array}{r} 2613 \\ \times 205 \\ \hline \end{array}$$

$$\begin{array}{r} 8711 \\ \times 212 \\ \hline \end{array}$$

$$\begin{array}{r} 8724 \\ \times 817 \\ \hline \end{array}$$

$$\begin{array}{r} 3376 \\ \times 206 \\ \hline \end{array}$$

$$\begin{array}{r} 8290 \\ \times 507 \\ \hline \end{array}$$

$$\begin{array}{r} 2407 \\ \times 477 \\ \hline \end{array}$$

$$\begin{array}{r} 1240 \\ \times 996 \\ \hline \end{array}$$

MISCELLENIOUS

$$\begin{array}{r} 205 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 806 \\ \times 84 \\ \hline \end{array}$$

$$\begin{array}{r} 705 \\ \times 21 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \times 55 \\ \hline \end{array}$$

$$\begin{array}{r} 406 \\ \times 72 \\ \hline \end{array}$$

$$\begin{array}{r} 507 \\ \times 49 \\ \hline \end{array}$$

$$\begin{array}{r} 506 \\ \times 99 \\ \hline \end{array}$$

$$\begin{array}{r} 809 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 805 \\ \times 422 \\ \hline \end{array}$$

$$\begin{array}{r} 607 \\ \times 273 \\ \hline \end{array}$$

$$\begin{array}{r} 306 \\ \times 122 \\ \hline \end{array}$$

$$\begin{array}{r} 505 \\ \times 227 \\ \hline \end{array}$$

$$\begin{array}{r} 4067 \\ \times 806 \\ \hline \end{array}$$

$$\begin{array}{r} 8507 \\ \times 404 \\ \hline \end{array}$$

$$\begin{array}{r} 6756 \\ \times 907 \\ \hline \end{array}$$

$$\begin{array}{r} 8529 \\ \times 506 \\ \hline \end{array}$$

$$\begin{array}{r} 1380 \\ \times 422 \\ \hline \end{array}$$

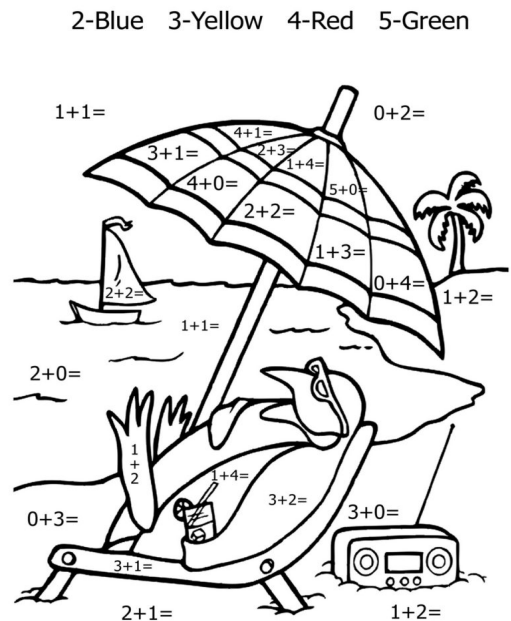
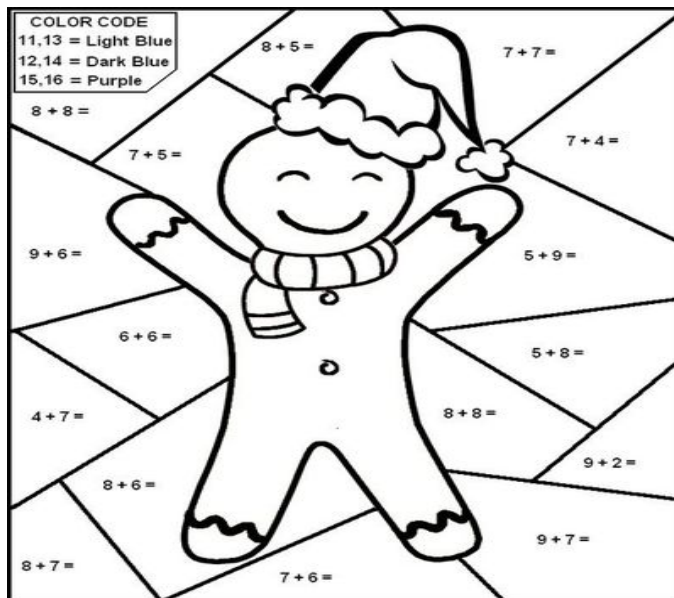
$$\begin{array}{r} 3560 \\ \times 973 \\ \hline \end{array}$$

$$\begin{array}{r} 8310 \\ \times 252 \\ \hline \end{array}$$

$$\begin{array}{r} 3350 \\ \times 227 \\ \hline \end{array}$$

1170 x318 -----	2610 x215 -----	8710 x214 -----	8720 x817 -----
3370 x220 -----	8290 x540 -----	2430 x470 -----	1240 x990 -----
2500 x610 -----	5840 x890 -----	7550 x210 -----	4950 x850 -----
4067 x800 -----	8507 x400 -----	6756 x900 -----	8529 x500 -----
1385 x300 -----	3567 x900 -----	8306 x200 -----	3355 x200 -----
1070 x318 -----	2010 x255 -----	8010 x212 -----	8020 x817 -----
3070 x246 -----	8090 x537 -----	4070 x477 -----	1040 x996 -----

COLOUR THE PICTURES AS SHOWN.



16. WORD PROBLEMS – MULTIPLICATION

1. Ramesh buys 6 LCD TVs. The cost of each TV is Rs.259. What is the cost of 6 LCD TVs?
2. The cost of each book is Rs 3. What is the cost of 6 books?
3. A bag contains 7 balls. How many balls are there in 8 bags?
4. Sony buys 6 t-shirts that cost Rs 35 per t-shirt. How much does she spend for t-shirts?
5. Sampath maintains her own library at home. She equally distributes her books on 8 shelves. If there are 27 books on a shelf, how many books does she have?
6. A broken scale measures 6 inches. Ramya uses the broken scale to measure the length of a rope. The rope is 35 times longer than the broken scale. Find the length of the rope.
7. A bolt manufacturing company packs 750 bolts in a carton. How many bolts are there in 8 cartons?
8. Ravi plans a field trip to New Jersey. He rents a room in a hotel at a cost of Rs.219 per day. If he stays in the hotel for 1 week, how much does he need to pay?
9. James works as carpenter for a chair manufacturing company. He earns Rs.450 per week. How much does he earn in 4 weeks?
10. Madhu uses the computer for 12 hours. If the average power consumption of a computer per hour is 299 watt, how much power does Madhu use?
11. Thomson bolt manufacturing company packs 599 bolts into each carton. How many bolts are needed to pack 59 cartons?
12. A broken scale reads 11 inches. Karunakar uses the broken scale to measure the length of a rope. She finds the length of the rope is 113 times the length of the broken scale. Find the length of the rope.
13. A teacher arranges students in a prayer hall in 13 rows and 19 columns. The arrangements are in a perfect rectangular array. Find the number of students in a prayer hall.
14. 34 dogs participated in a dog show. The participation fee for each dog is Rs.97. Find the amount collected for the participation fee.
15. A mechanic takes 17 hours to assemble a car. How long does he take to assemble 15 cars?
16. Monika collected 45 stamps in each box. She has 13 such boxes. What is the total number of stamps she collected?
17. Students are taken to a field trip in 13 buses. Each bus can accommodate 15 students. If all buses are completely filled, what is the number of students who participated in the field trip?
18. Sumanth receives Rs.1525 as a scholarship in a year. How much does he receive as scholarship in 3 years?
19. A bolt manufacturing company packs 1550 bolt in each carton. Find the number of bolts in 8 cartons?
20. Mamatha runs 5032 meters in 1 hour. If she runs at this rate, how far does she run in 4 hours?

17. DIVISION

A. DIVISION BY 1 DIGIT NUMBER

$$3 \overline{) 6}$$

$$6 \overline{) 6}$$

$$4 \overline{) 8}$$

$$5 \overline{) 5}$$

$$8 \overline{) 8}$$

$$7 \overline{) 7}$$

$$7 \overline{) 7}$$

$$9 \overline{) 9}$$

$$7 \overline{) 7}$$

$$2 \overline{) 8}$$

$$8 \overline{) 8}$$

$$5 \overline{) 5}$$

$$3 \overline{) 9}$$

$$3 \overline{) 9}$$

$$2 \overline{) 8}$$

$$4 \overline{) 8}$$

$$6 \overline{) 6}$$

$$4 \overline{) 8}$$

$$1 \overline{) 9}$$

$$3 \overline{) 9}$$

$$5 \overline{) 70}$$

$$9 \overline{) 45}$$

$$3 \overline{) 27}$$

$$7 \overline{) 77}$$

$$7 \overline{) 7}$$

$$5 \overline{) 15}$$

$$6 \overline{) 42}$$

$$8 \overline{) 8}$$

$$1 \overline{) 78}$$

$$1 \overline{) 59}$$

$$5 \overline{) 40}$$

$$10 \overline{) 60}$$

$$2 \overline{) 96}$$

$$1 \overline{) 67}$$

$$3 \overline{) 99}$$

$$4 \overline{) 76}$$

$$8 \overline{) 440}$$

$$10 \overline{) 870}$$

$$8 \overline{) 352}$$

$$8 \overline{) 624}$$

$$4 \overline{) 100}$$

$$3 \overline{) 168}$$

$$9 \overline{) 450}$$

$$1 \overline{) 740}$$

$$8 \overline{) 248}$$

$$7 \overline{) 252}$$

$$1 \overline{) 667}$$

$$8 \overline{) 520}$$

B. DIVISION BY 2 DIGIT NUMBER

$$10 \overline{) 680}$$

$$13 \overline{) 444}$$

$$15 \overline{) 887}$$

$$8 \overline{) 176}$$

$$81 \overline{) 810}$$

$$68 \overline{) 136}$$

$$73 \overline{) 219}$$

$$36 \overline{) 288}$$

$$24 \overline{) 984}$$

$$43 \overline{) 473}$$

$$16 \overline{) 96}$$

$$84 \overline{) 672}$$

$$24 \overline{) 816}$$

$$80 \overline{) 720}$$

$$30 \overline{) 120}$$

$$19 \overline{) 399}$$

$$52 \overline{) 416}$$

$$15 \overline{) 555}$$

$$12 \overline{) 348}$$

$$38 \overline{) 646}$$

$$13 \overline{) 3137}$$

$$10 \overline{) 9914}$$

$$32 \overline{) 9866}$$

$$41 \overline{) 6864}$$

$$13 \overline{) 3378}$$

$$25 \overline{) 1706}$$

$$35 \overline{) 1034}$$

$$23 \overline{) 2456}$$

$$12 \overline{) 8107}$$

$$28 \overline{) 3087}$$

$$43 \overline{) 9621}$$

$$23 \overline{) 9803}$$

$$31 \overline{) 2998}$$

$$16 \overline{) 6702}$$

$$33 \overline{) 6445}$$

$$25 \overline{) 2374}$$

C. DIVISIONS OF SOME SPECIAL CASES (0 IN UNITS/TENS/HUNDREDS .. OF DIVIDEND/DIVISOR

$$2 \overline{) 20}$$

$$5 \overline{) 10}$$

$$5 \overline{) 50}$$

$$5 \overline{) 40}$$

$$5 \overline{) 70}$$

$$9 \overline{) 90}$$

$$3 \overline{) 30}$$

$$7 \overline{) 70}$$

$$6 \overline{) 60}$$

$$5 \overline{) 10}$$

$$4 \overline{) 40}$$

$$8 \overline{) 80}$$

$$2 \overline{) 708}$$

$$5 \overline{) 509}$$

$$5 \overline{) 405}$$

$$10 \overline{) 600}$$

$$2 \overline{) 906}$$

$$3 \overline{) 607}$$

$$9 \overline{) 909}$$

$$4 \overline{) 706}$$

$$8 \overline{) 440}$$

$$10 \overline{) 870}$$

$$8 \overline{) 350}$$

$$8 \overline{) 620}$$

$$4 \overline{) 100}$$

$$3 \overline{) 160}$$

$$9 \overline{) 450}$$

$$1 \overline{) 740}$$

$$8 \overline{) 2080}$$

$$7 \overline{) 2020}$$

$$3 \overline{) 6070}$$

$$8 \overline{) 5020}$$

$$4 \overline{) 3840}$$

$$6 \overline{) 4620}$$

$$1 \overline{) 7620}$$

$$4 \overline{) 4080}$$

$$10 \overline{) 6800}$$

$$3 \overline{) 4440}$$

$$1 \overline{) 8870}$$

$$8 \overline{) 1760}$$

$$80 \overline{) 810}$$

$$60 \overline{) 136}$$

$$70 \overline{) 219}$$

$$30 \overline{) 288}$$

$$20 \overline{) 9840}$$

$$40 \overline{) 4730}$$

$$60 \overline{) 9600}$$

$$80 \overline{) 6720}$$

$$20 \overline{) 8160}$$

$$80 \overline{) 7200}$$

$$30 \overline{) 1200}$$

$$50 \overline{) 3990}$$

18. WORD PROBLEMS – DIVISION

1. Sahana bought 8 chocolates and gave 2 chocolates to each of her friends. How many friends did she give chocolate to?
2. Ganesh saved 9 dollar in a piggy bank in 3 days. If he saved equal amount of money in each day, find the number of dollars he saved in one day.
3. Mahesh won two games and scored 4 points. She scored the same number of points in each game. How many points did she score in each game?
4. A monkey eats 6 apples in 3 days. How many apples does it eat in a day?
5. Keerty drinks 8 cups of milk in 4 days. How many cups does she drink in a day?
6. Balu bought three pairs of shoes for Rs.90. What is the cost of each pair of shoes?
7. Charan bought 64 candies and gave 4 candies to everyone in his class. How many students are in Charan class?
8. Kamal formed 7 equal groups out of 42 students. Find the number of students in each group.
9. Sheela collected 60 coins and equally distributes them in 4 boxes. Find the number of coins in each box.
10. Arun ordered 7 cakes. He paid Rs.315. What is the cost of each cake?
11. The maintenance charge collected from 8 houses is Rs.120. What is the maintenance charge per house?
12. Sony digital company sends announcements to the employees by email. 6 Sony executives sent emails to 324 employees. What is the number of emails sent by each executive?
13. A florist made 210 Bouquets in 5 days. How many Bouquets did the florist make in a day?

19. TABLES (frenzy)

+	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

—	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

X	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

X	11	22	33	44	55	66	77	88	99	100
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										

BASIC MATHEMATICS

20. NUMBER SENSE

1. Write the numbers between the following numbers.
 - a. 1 and 20 b. 150 and 195 c. 515 and 578
2. Write the given numbers in ascending order. 5,11,6,9,8,10,7
3. How many numbers are there between the following numbers?
 - a. 11,18 b. 100 , 109 c. 375, 470
4. How many digits are there in 879 ?
5. Write the smallest and greatest one digit numbers.
6. Write the smallest and greatest two digit numbers.
7. Write the smallest and greatest three digit numbers.
8. Write all the numbers which are formed by digits 5,2,1.
Write smallest and greatest among them.
9. Write the smallest and greatest four digit number.
10. Write the following given numbers in words.
 - a. 51 b. 105 c. 990 d. 9644 e. 60780 f. 54001 g. 630860
 - h. 909009 i. 840006 j. 56043732 k. 692046001 l. 13047265

11. Write the following numbers in numerical form

- a. three hundred three b. Fifty five c. Six hundred six (d) Six thousand six
- e. twenty one thousand four hundred and seven f. Seventy thousand seventy
- g. Six lakhs thirty thousand two hundred twenty six h. Fifteen lakhs and one

12. Write the numbers in short/compact form.

10+9	200+20+5	800 +0+0	0+10+5	3000+500+10+7
90000+400+9	20000+5000+700+8	70000+700+70+7	8000+400+10	100+1000+10+8
8000+700+90	200000+8000+90+8	90000+100+70+7	800+40+9	700+2000+50+4

13. Write the given numbers in expanded form.

20	219	909	86001	307632
8099630	77777	1008	6000	1000789

14. Write the place value and face value of 4 in the following numbers?

417	714	410078	9164	100489
-----	-----	--------	------	--------

15. Write the following numbers in ascending/descending order.

3,2,5,7,8	94,99,98,96,93	19,25,17,23,18	517, 571,751,175	90+9,10+7,80+8, 23, 40+9
2754,3620,4730, 1508	86001,86670,80670, 87608	425435, 962857, 307362, 944751,	9902729, 8099630, 793563	Two hundred six, two hundred sixty, six hundred twenty two, six hundred two

16. Write the next four numbers.

- a. 2,4,6,8,... b. 3,6,9,... c. 10,20,30,... d. 50,100,150,...
 e. 401, 501, 601, 701,... f. T9twenty five , thirty one, thirty six,....

17. Write the even and odd numbers between 50 and 80.

18. Tick the odd numbers from the following numbers.

0, 2,3,13,14	4,5,17,8,9	14,19,21,25,23	15, 19,118,46,59	605,614,115, 218,908
-----------------	------------	----------------	------------------	-------------------------

19. Tick the even numbers from the following numbers.

0, 2,3,13,14	4,5,17,8,9	14,19,21,25,23	15, 19,118,46,59	605,614,115, 218,908
-----------------	------------	----------------	---------------------	-------------------------

20. Rounding off the numbers.

a) Round off the numbers to the nearest tens.

81	27	3952	4409	9415
----	----	------	------	------

b) Round off the numbers to the nearest hundreds.

272	315	23468	93617	96182
-----	-----	-------	-------	-------

c) Round off the numbers to the nearest thousands.

9600	4001	8765	7452	70124
------	------	------	------	-------

21. MULTIPLES

Write the multiplication tables in the given table.

<i>0 table</i>	<i>1 table</i>	<i>2 table</i>	<i>4table</i>	<i>7 table</i>	<i>9 table</i>	<i>6 table</i>	<i>10 table</i>	<i>11table</i>	<i>21table</i>
<i>13table</i>	<i>15table</i>	<i>17table</i>	<i>5 table</i>	<i>3 table</i>	<i>18table</i>	<i>8table</i>	<i>12table</i>	<i>20table</i>	<i>30table</i>

A. Write the first ten multiples of the following numbers.

2 5 7 9 13 10 27 20

b. How many multiples can a number have?

c. How many numbers are there having 1 as a multiple?

d. Write the numbers which are having 100 as a multiple.

e. Is **46** a multiple of 12?

f. Is **18** a multiple of 3?

g. Is **29** a multiple of 4?

22. DIVISIBILITY RULES

1. Revise the divisibility rules of 2,3,4,5,6,8,9,10,11

2. Determine if the numbers below which are divisible by 2, 3, 4, 5, 6, 7, 8, 9, 10 ?

NUMBER	BY 2	DIGIT SUM OF THE NUMBER	BY 3	BY 4	BY 5	BY 6	BY 8	BY 9	BY 10	BY 11	Number Divisible by
1248	Y	15	Y	Y	N	Y	Y	N	N	N	2,3,4,6,8
15											
16											
27											
28											
36											
93											
102											
144											
168											
256											
450											
549											
1470											
4518											
7120											
479											

Fill in the smallest digit to make the number divisible by:

(i) by 5 : 7164__, 32197__

(ii) by 3 : 1__43, 47__05, __316

(iii) by 6 : __428, 9__52, 721__

(iv) by 4 : 2462__, 91__ __, 670__

23. LEAST COMMON MULTIPLE

Find Least Common Multiple (LCM) for each number set.

1) 13 and 12 =

lcm:

2) 15 and 20 =

lcm:

3) 15 and 10 =

lcm:

4) 12 and 13 =

lcm:

5) 12 and 18 =

lcm:

6) 18 and 18 =

lcm:

7) 18 and 16 =

lcm:

8) 10 and 13 =

lcm:

155 , 196 and 170 =

lcm:

11 , 161 and 125 =

lcm:

13 and 154 =

lcm:

59 , 161 and 140 =

lcm:

132 , 18 and 171 =

lcm:

181 and 132 =

lcm:

148 , 53 and 77 =

lcm:

153 , 45 and 191 =

lcm:

178 and 159 =

lcm:

110 , 162 and 86 =

lcm:

216 , 192 and 181 =

lcm:

243 , 356 and 175 =

lcm:

24. FACTORS - GCF

- Write all the factors of the numbers 1 to 50.
- Write all the factors of the given numbers. 64 150 225 72 121 100
- Fill the table given below for the numbers up to 100

Numbers	Product forms	Factors	Number of factors	Prime/composite
2				
3				
4	1 x4 2x2	1,2,4	3	
5				

- write the prime numbers between 1 to 100 from the above table.
- Write the composite numbers between 1 to 100.
- Write all twin primes between 1 to 100.
- Write any five pairs of relative primes.
- Write the following numbers as the product of prime factors.

18 24 192 256 58 150 35 128 100 1024

- Write all the common factors of the following.

16,20	12,16,20	10,15	36, 72	10,30,50
12,16,14	10,24,25	15,25,40	18,27,54	102,119,153

- Find the greatest common factor/highest common factors of the following.

(368, 552) = <u> </u>	(594, 990) = <u> </u>	(784, 294) = <u> </u>	(744, 930) = <u> </u>
(792, 880) = <u> </u>	(384, 288) = <u> </u>	(880, 264) = <u> </u>	(288, 480) = <u> </u>
(891, 297) = <u> </u>	(552, 736) = <u> </u>	(500, 300) = <u> </u>	(470, 282) = <u> </u>
(480, 192) = <u> </u>	(194, 291) = <u> </u>	(276, 368) = <u> </u>	(273, 637) = <u> </u>
(644, 736) = <u> </u>	(264, 352) = <u> </u>	(970, 388) = <u> </u>	(686, 392) = <u> </u>

25. BODMAS RULE (Order of Operations)

Simplify:

$7 \times (9 + 3) \times 1$	$62 + 5 \times 12 \div 2$	$90 - 40 + 40 \times 2$	$24 \div 2 + 5$
$75 + 25 - 10 \div 5$	$1 + 5 \times 9 \div 9$	$24 - 2 \times 5$	$(81 \times 2) - 4$
$5(10 + 10) \div 10$	$(88 + 5) + 15 \times (3 - 1)$	$47 - 27 + 5^2 \times 2$	$3(15 + 25) + 35 \div 7$
$90 - 1 \times 2 + 7$	$12 + 60 \div 6 \times 52$	$56 \div 8 \times 4 \times 0$	$12 + (12 \div 4) - 3$
$(8 + 2) - 50 + 5 \times 2$	$100 \times 4 - 25 \times 2$	$(50 + 5) \times 2 - 5 \times 2$	$9^2 - 5 \times 12$

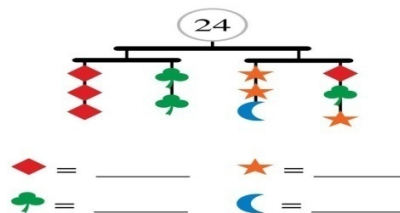
Try this:

Arrange these numbers so that they answer the questions below:

4 3 6 7 5 2


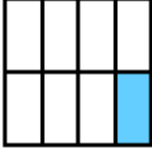




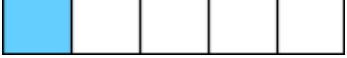

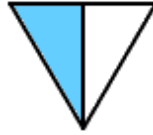









1. Largest possible number _____
2. Smallest possible number _____
3. Largest even number _____
4. Smallest even number _____
5. Largest odd number _____
6. Smallest odd number _____
7. Largest number divisible by 5 _____
8. Smallest number divisible by 5 _____
9. Largest number divisible by 3 _____
10. Smallest number divisible by 3 _____

TRY THIS....



26. FRACTIONS

Write a fraction to show how much of the shape is shaded. And Write the fraction that is not shaded.

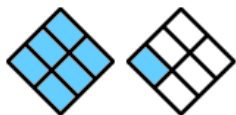
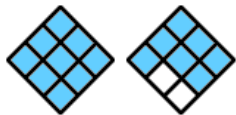
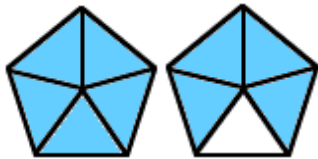
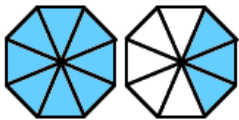
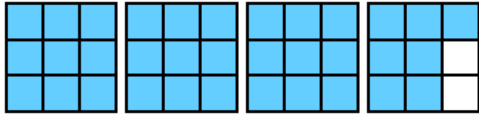
1. 	2. 	3. 
4. 	5. 	6. 
7. 	8. 	9. 
10. 	11. 	12. 
13. 	14. 	15. 
16. 	17. 	18. 

Draw a picture to show the fraction.

eight-tenths	$\frac{2}{5}$	one-half	$\frac{3}{7}$	$\frac{4}{9}$
five-eighths	five-sixths	$\frac{3}{4}$	$\frac{4}{7}$	$\frac{6}{11}$

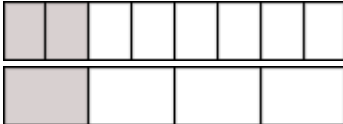







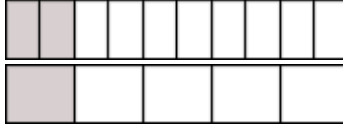
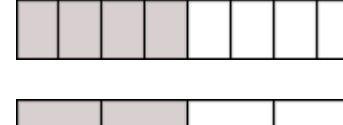
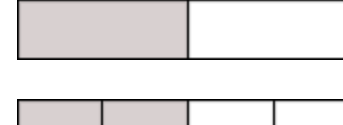
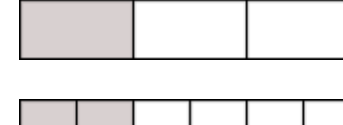
27. MIXED FRACTIONS

Write as a mixed fraction and improper fraction for the parts that are shaded.



28. EQUAL FRACTIONS

Fill in the missing number to make two equal fractions.

<p>1. </p> <p>$\frac{2}{8} = \frac{\boxed{}}{4}$</p>	<p>2. </p> <p>$\frac{\boxed{}}{10} = \frac{3}{5}$</p>	<p>3. </p> <p>$\frac{\boxed{}}{3} = \frac{6}{9}$</p>
<p>4. </p> <p>$\frac{1}{2} = \frac{\boxed{}}{4}$</p>	<p>5. </p> <p>$\frac{3}{6} = \frac{\boxed{}}{2}$</p>	<p>6. </p> <p>$\frac{3}{4} = \frac{\boxed{}}{8}$</p>
<p>7. </p> <p>$\frac{\boxed{}}{6} = \frac{2}{3}$</p>	<p>8. </p> <p>$\frac{\boxed{}}{5} = \frac{8}{10}$</p>	<p>9. </p> <p>$\frac{\boxed{}}{10} = \frac{1}{5}$</p>
<p>10. </p> <p>$\frac{4}{8} = \frac{\boxed{}}{4}$</p>	<p>11. </p> <p>$\frac{\boxed{}}{2} = \frac{2}{4}$</p>	<p>12. </p> <p>$\frac{1}{3} = \frac{\boxed{}}{6}$</p>

Write the missing numerators.

$$1) \frac{2}{3} = \frac{?}{6}$$

$$2) \frac{4}{5} = \frac{?}{45}$$

$$3) \frac{1}{6} = \frac{?}{24}$$

$$4) \frac{1}{6} = \frac{?}{66}$$

$$5) \frac{1}{6} = \frac{?}{24}$$

$$6) \frac{5}{18} = \frac{?}{108}$$

$$7) \frac{6}{7} = \frac{?}{42}$$

$$8) \frac{2}{5} = \frac{?}{5}$$

$$9) \frac{1}{4} = \frac{?}{24}$$

$$10) \frac{3}{5} = \frac{?}{50}$$

$$11) \frac{2}{6} = \frac{?}{18}$$

$$12) \frac{1}{6} = \frac{?}{54}$$

$$13) \frac{2}{14} = \frac{?}{56}$$

$$14) \frac{3}{5} = \frac{?}{10}$$

$$15) \frac{2}{8} = \frac{?}{16}$$

$$16) \frac{1}{8} = \frac{?}{48}$$

29. IMPROPER – MIXED FRACTIONS

Convert each improper fraction to mixed number or whole number.

$$\frac{9}{8} =$$

$$\frac{8}{3} =$$

$$\frac{17}{2} =$$

$$\frac{17}{6} =$$

$$\frac{9}{4} =$$

$$\frac{7}{6} =$$

$$\frac{8}{5} =$$

$$\frac{5}{2} =$$

$$\frac{10}{7} =$$

$$\frac{13}{6} =$$

$$\frac{19}{6} =$$

$$\frac{9}{8} =$$

$$\frac{9}{5} =$$

$$\frac{11}{8} =$$

$$\frac{17}{5} =$$

$$\frac{11}{4} =$$

Convert each mixed number to improper fraction.

$$2 \frac{6}{17} =$$

$$2 \frac{5}{9} =$$

$$6 \frac{7}{12} =$$

$$2 \frac{4}{5} =$$

$$9 \frac{6}{7} =$$

$$6 \frac{1}{12} =$$

$$5 \frac{7}{13} =$$

$$9 \frac{6}{19} =$$

$$6 \frac{3}{10} =$$

$$7 \frac{4}{19} =$$

$$4 \frac{6}{11} =$$

$$8 \frac{9}{11} =$$

30. COMPARING FRACTIONS

Compare the fractions, and write >, < or = in the box.

1 a. $\frac{4}{6}$ <input type="text"/> $\frac{12}{12}$	1 b. $\frac{6}{9}$ <input type="text"/> $\frac{6}{9}$	1 c. $\frac{10}{10}$ <input type="text"/> $\frac{6}{6}$
2 a. $\frac{12}{12}$ <input type="text"/> $\frac{10}{11}$	2 b. $\frac{7}{7}$ <input type="text"/> $\frac{8}{8}$	2 c. $\frac{7}{11}$ <input type="text"/> $\frac{9}{11}$
3 a. $\frac{11}{12}$ <input type="text"/> $\frac{10}{12}$	3 b. $\frac{3}{3}$ <input type="text"/> $\frac{3}{6}$	3 c. $\frac{5}{6}$ <input type="text"/> $\frac{8}{8}$
4 a. $\frac{1}{11}$ <input type="text"/> $\frac{1}{6}$	4 b. $\frac{1}{11}$ <input type="text"/> $\frac{6}{11}$	4 c. $\frac{1}{2}$ <input type="text"/> $\frac{8}{11}$
5 a. $\frac{2}{9}$ <input type="text"/> $\frac{2}{2}$	5 b. $\frac{1}{12}$ <input type="text"/> $\frac{2}{12}$	5 c. $\frac{6}{7}$ <input type="text"/> $\frac{6}{6}$
6 a. $\frac{2}{9}$ <input type="text"/> $\frac{1}{2}$	6 b. $\frac{5}{11}$ <input type="text"/> $\frac{1}{2}$	6 c. $\frac{2}{3}$ <input type="text"/> $\frac{2}{5}$
7 a. $\frac{2}{8}$ <input type="text"/> $\frac{1}{2}$	7 b. $\frac{1}{1}$ <input type="text"/> $\frac{9}{9}$	7 c. $\frac{11}{11}$ <input type="text"/> $\frac{4}{10}$
8 a. $\frac{7}{7}$ <input type="text"/> $\frac{3}{10}$	8 b. $\frac{5}{5}$ <input type="text"/> $\frac{10}{12}$	8 c. $\frac{7}{10}$ <input type="text"/> $\frac{1}{2}$

Order the Fractions from least to greatest (Ascending order).

$$\frac{7}{13}, \frac{9}{17}, \frac{6}{11} =$$

$$\frac{4}{9}, \frac{9}{11}, \frac{4}{7}, \frac{3}{5} =$$

$$\frac{2}{3}, \frac{7}{19}, \frac{4}{17}, \frac{6}{13} =$$

$$\frac{6}{11}, \frac{3}{16}, \frac{8}{13} =$$

$$\frac{6}{19}, \frac{4}{17}, \frac{7}{12}, \frac{5}{13} =$$

$$\frac{9}{13}, \frac{8}{13}, \frac{1}{9} =$$

$$\frac{8}{9}, \frac{4}{9}, \frac{4}{9}, \frac{2}{11}, \frac{5}{13} =$$

$$\frac{5}{18}, \frac{9}{19}, \frac{4}{15}, \frac{7}{13} =$$

$$\frac{5}{18}, \frac{7}{12}, \frac{1}{16}, \frac{8}{11} =$$

$$\frac{4}{15}, \frac{7}{19}, \frac{9}{10}, \frac{4}{11}, \frac{4}{15} =$$

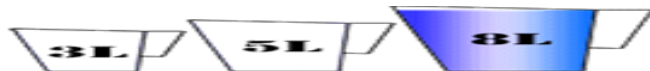
$$\frac{8}{13}, \frac{5}{12}, \frac{2}{13}, \frac{7}{15}, \frac{2}{13} =$$

$$\frac{5}{18}, \frac{6}{13}, \frac{9}{19}, \frac{9}{13} =$$

$$\frac{4}{13}, \frac{5}{7}, \frac{3}{10} =$$

$$\frac{7}{16}, \frac{2}{19}, \frac{5}{12}, \frac{2}{9} =$$

$$\frac{5}{13}, \frac{7}{10}, \frac{2}{17}, \frac{8}{9}, \frac{6}{13} =$$



Using the three jugs shown, divide the 8 litres of water into two equal parts of 4 litres.

TRY THIS !!

31. SIMPLIFICATION OF FRACTIONS

WRITE THE FOLLOWING FRACTIONS IN SIMPLEST FORM:

1) $\frac{10}{24} =$

2) $\frac{12}{40} =$

3) $\frac{20}{36} =$

4) $\frac{20}{65} =$

5) $\frac{9}{51} =$

6) $\frac{12}{33} =$

7) $\frac{1}{7} =$

8) $\frac{9}{30} =$

9) $\frac{15}{54} =$

10) $\frac{3}{17} =$

11) $\frac{10}{75} =$

12) $\frac{12}{28} =$

13) $\frac{4}{18} =$

14) $\frac{2}{10} =$

15) $\frac{8}{14} =$

16) $\frac{20}{56} =$

17) $\frac{4}{20} =$

18) $\frac{5}{25} =$

19) $\frac{8}{26} =$

20) $\frac{10}{26} =$

Add Fractions.

1) $\frac{4}{6} + \frac{5}{6} =$

2) $\frac{1}{8} + \frac{4}{8} =$

3) $\frac{2}{5} + \frac{2}{15} =$

4) $\frac{7}{8} + \frac{1}{4} =$

5) $\frac{7}{8} + \frac{4}{8} =$

6) $\frac{2}{3} + \frac{2}{6} =$

7) $\frac{1}{5} + \frac{5}{10} =$

8) $\frac{4}{6} + \frac{2}{6} =$

9) $\frac{1}{4} + \frac{5}{6} =$

10) $\frac{7}{12} + \frac{7}{8} =$

11) $\frac{7}{8} + \frac{7}{12} =$

12) $\frac{3}{20} + \frac{4}{20} =$

13) $\frac{1}{6} + \frac{4}{6} =$

14) $\frac{2}{5} + \frac{7}{15} =$

15) $\frac{1}{8} + \frac{4}{16} =$

16) $\frac{4}{6} + \frac{5}{8} =$

Subtract Fractions.

1) $\frac{4}{5} - \frac{6}{10} =$

2) $\frac{4}{6} - \frac{1}{2} =$

3) $\frac{4}{6} - \frac{4}{8} =$

4) $\frac{3}{5} - \frac{3}{15} =$

5) $\frac{4}{5} - \frac{1}{5} =$

6) $\frac{8}{12} - \frac{1}{2} =$

7) $\frac{6}{7} - \frac{3}{7} =$

8) $\frac{8}{9} - \frac{4}{6} =$

9) $\frac{6}{8} - \frac{3}{12} =$

10) $\frac{7}{9} - \frac{5}{9} =$

11) $\frac{6}{7} - \frac{1}{7} =$

12) $\frac{6}{7} - \frac{1}{7} =$

13) $\frac{3}{4} - \frac{3}{8} =$

14) $\frac{2}{5} - \frac{1}{5} =$

15) $\frac{2}{10} - \frac{4}{30} =$

16) $\frac{9}{15} - \frac{1}{5} =$

17) $\frac{1}{4} - \frac{5}{20} =$

18) $\frac{3}{8} - \frac{2}{8} =$

19) $\frac{1}{4} - \frac{2}{8} =$

20) $\frac{2}{6} - \frac{2}{12} =$

Multiply Fractions.

1) $\frac{7}{20} \times \frac{8}{10} =$

2) $\frac{3}{5} \times \frac{6}{20} =$

3) $\frac{3}{8} \times \frac{7}{8} =$

4) $\frac{1}{6} \times \frac{4}{6} =$

5) $\frac{1}{16} \times \frac{8}{16} =$

6) $\frac{2}{6} \times \frac{4}{6} =$

7) $\frac{4}{7} \times \frac{3}{4} =$

8) $\frac{5}{14} \times \frac{1}{28} =$

9) $\frac{1}{8} \times \frac{7}{8} =$

10) $\frac{6}{8} \times \frac{4}{8} =$

11) $\frac{1}{2} \times \frac{4}{6} =$

12) $\frac{4}{9} \times \frac{7}{9} =$

13) $\frac{5}{20} \times \frac{6}{20} =$

14) $\frac{5}{30} \times \frac{4}{10} =$

15) $\frac{4}{5} \times \frac{5}{15} =$

16) $\frac{3}{10} \times \frac{2}{5} =$

17) $\frac{3}{21} \times \frac{2}{3} =$

18) $\frac{3}{12} \times \frac{7}{8} =$

19) $\frac{2}{20} \times \frac{4}{5} =$

20) $\frac{7}{20} \times \frac{3}{30} =$

Divide Fractions.

1) $\frac{1}{6} \div \frac{5}{6} =$

2) $\frac{4}{9} \div \frac{1}{6} =$

3) $\frac{2}{12} \div \frac{2}{8} =$

4) $\frac{1}{4} \div \frac{2}{5} =$

5) $\frac{1}{6} \div \frac{2}{9} =$

6) $\frac{5}{20} \div \frac{2}{10} =$

7) $\frac{1}{2} \div \frac{7}{8} =$

8) $\frac{3}{14} \div \frac{1}{4} =$

9) $\frac{9}{10} \div \frac{2}{5} =$

10) $\frac{4}{10} \div \frac{7}{15} =$

11) $\frac{1}{5} \div \frac{9}{15} =$

12) $\frac{2}{3} \div \frac{3}{18} =$

13) $\frac{8}{12} \div \frac{6}{12} =$

14) $\frac{6}{15} \div \frac{2}{5} =$

15) $\frac{1}{6} \div \frac{5}{6} =$

16) $\frac{5}{8} \div \frac{1}{8} =$

17) $\frac{2}{5} \div \frac{2}{15} =$

18) $\frac{2}{8} \div \frac{5}{8} =$

19) $\frac{5}{6} \div \frac{3}{4} =$

20) $\frac{1}{2} \div \frac{7}{12} =$

32. DECIMALS

CONVERT THE FOLLOWING INTO DECIMAL FORM.

$$\frac{1}{10} \quad \frac{8}{10} \quad \frac{7}{100} \quad \frac{9}{1000} \quad \frac{23}{10} \quad \frac{237}{100} \quad \frac{1234}{1000} \quad \frac{2349}{100} \quad \frac{375}{1000} \quad \frac{23412}{1000}$$

CONVERT THE FOLLOWING INTO FRACTION FORM.

0.1 0.02 0.005 0.35 0.035 0.50 2.6 12.7 0.003 100.5 20.001 123.01

DECIMALS ADDITION / SUBTRACTION

11.907 +3.224 -----	4.428 +9.197 -----	6.443 +5.167 -----	4.826 +7.784 -----	2.755 -1.086 -----
0.961 -0.961 -----	0.843 +8.744 -----	0.985 +7.371 -----	5.965 +5.549 -----	1.911 +3.894 -----
5.430 -4.503 -----	2.072 -1.214 -----	3.037 -1.914 -----	5.865 -2.403 -----	4.725 -1.674 -----
7.216 -5.928 -----	8.609 +6.748 -----	3.734 -2.683 -----	2.082 +3.272 -----	2.415 -2.277 -----
10.789 +6.683 -----	10.664 +4.397 -----	11.155 +8.691 -----	2.636 -2.524 -----	2.161 -1.458 -----
3.612 -1.939 -----	8.944 -6.238 -----	10.431 -2.934 -----	2.514 +5.035 -----	9.552 +7.560 -----







- 13 + 1.85 + 3.52 - 2.01 + 551.2 9.372 + 26.3 - 5.08 + 4.91
- 1.2 - 1.22 + 1.222 + 1.2222 0.005 + 0.07 + 0.37 - 0.17
- 6 + 2.676 + 20.82 - 6.93 117 + 1.367 - 0.07 + 5.08
- 16 + 0.639 - 6 + 0.006 0.362 + 12.1 + 170.26

MULTIPLICATIONS

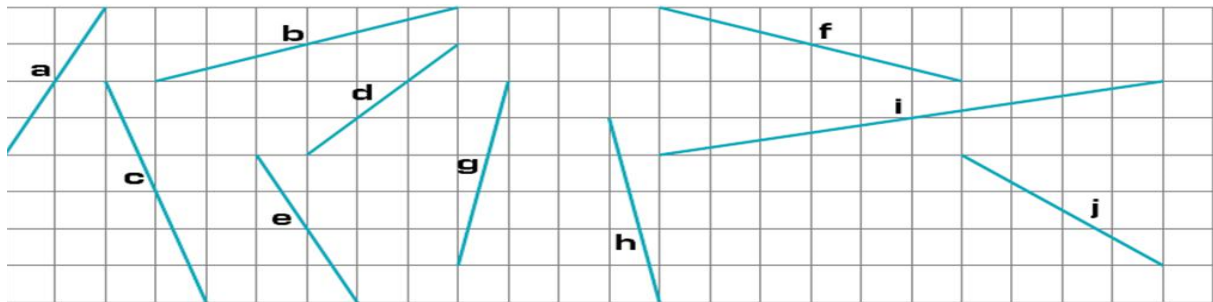
0.42 X 11	2.141 X 13	2.69 X 15	2.79 X 10	7.813 X 5
5.64 X 100	7.13 X 1000	2.02 X 1000	3.12 X 10000	0.018 X 10
3.5 X 1000	11.54 X 3.2	215.67 X 3.15	0.156 X 367	1.3 X 1.9 X 0.4

33. BASIC GEOMETRY

A. Identify the point, line segment, ray from the following and name them.










<p>1)</p>  _____	<p>2)</p>  _____	<p>3)</p>  _____
<p>4)</p>  _____	<p>5)</p>  _____	<p>6)</p>  _____

B. Measure the line segment with scale. Verify them using divider.













C. Draw the line segments with measures 3 cm, 4.3 cm, 6 cm, 7.1 cm, 8.2 cm. And name them

D. Measure the angles, and name them.

<p>1.</p>  _____	<p>2.</p>  _____	<p>3.</p>  _____
<p>4.</p>  _____	<p>5.</p>  _____	<p>6.</p>  _____
<p>7.</p>  _____	<p>8.</p>  _____	<p>9.</p>  _____




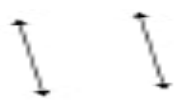

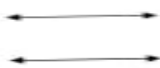









D. Draw the angles with measures 30° , 45° , 50° , 60° , 72° , 150° , 210° , 195°

E. Write the type of angle Acute / Obtuse/ Right.

1)		_____	6)		_____
2)		_____	7)		_____
3)		_____	8)		_____
4)		_____	9)		_____
5)		_____	10)		_____
11)	84°	_____	16)	166°	_____
12)	89°	_____	17)	90°	_____
13)	25°	_____	18)	125°	_____
14)	50°	_____	19)	149°	_____
15)	180°	_____	20)	106°	_____

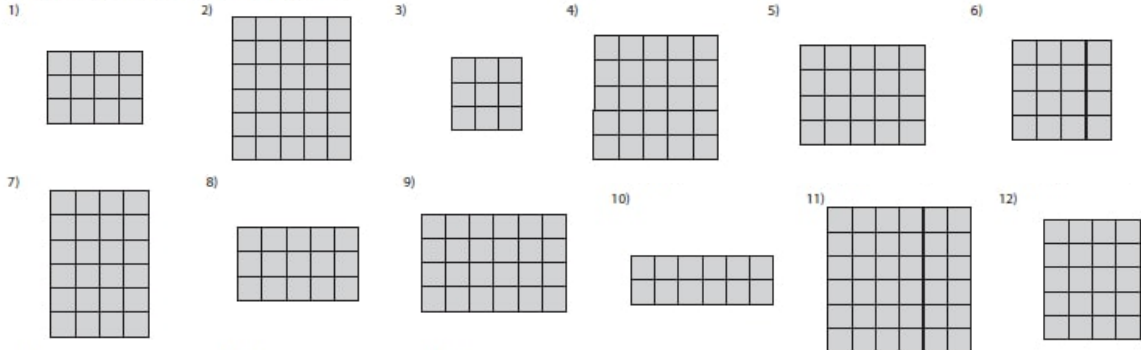
F. Which of the following are Parallel, Intersecting or Perpendicular Lines.

Write them using symbols.

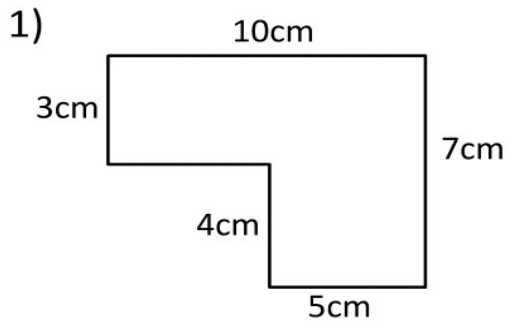
1)		2)		3)	
4)		5)		6)	
7)		8)		9)	
10)		11)		12)	
13)		14)		15)	

34. AREA AND PERIMETER

FIND THE PERIMETER AND AREA OF THE FOLLOWING FIGURES.

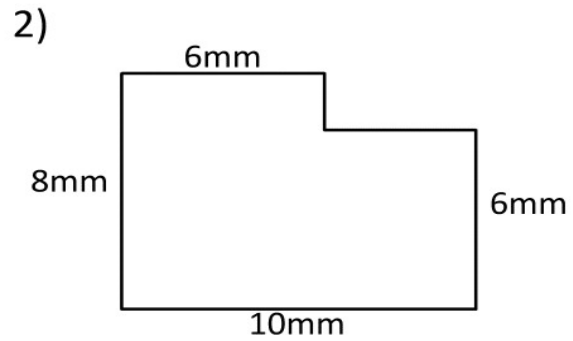


FIND THE PERIMETER AND AREA OF THE GIVEN FIGURES



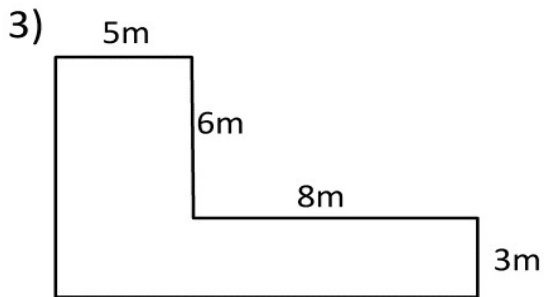
Area = _____ square cm (cm²)

Perimeter = _____ m



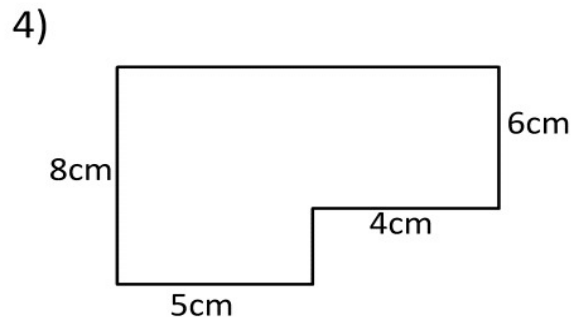
Area = _____ square mm (mm²)

Perimeter = _____ mm



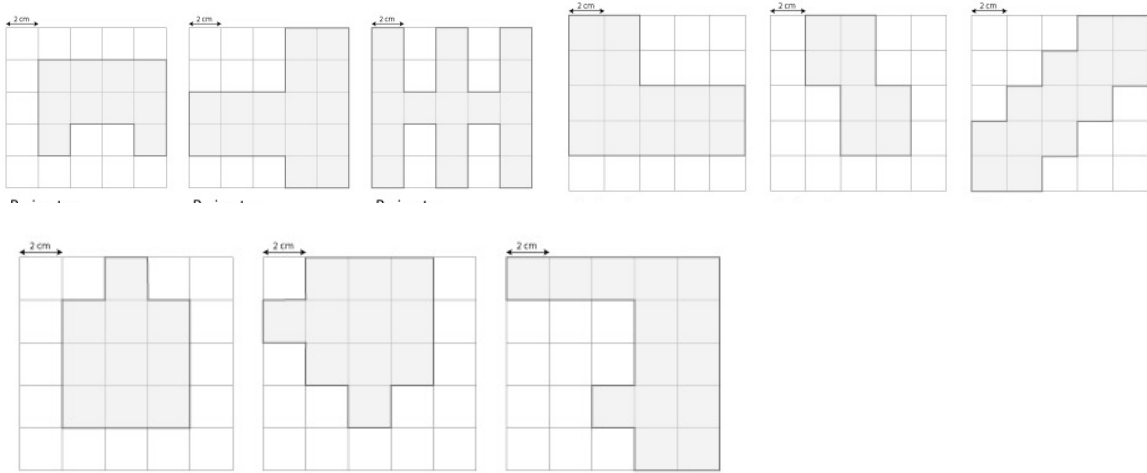
Area = _____ square m (m²)

Perimeter = _____ m



Area = _____ square cm (cm²)

Perimeter = _____ cm



Draw any shape in each grid with the following area.

1) Area = 26 square units



2) Area = 22 square units



3) Area = 13 square units



4) Area = 17 square units



5) Area = 10 square units



6) Area = 24 square units



7) Area = 19 square units



8) Area = 15 square units



9) Area = 28 square units



Draw 3 different shapes with the area 20 square units.

10)



11)

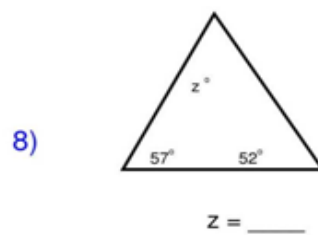
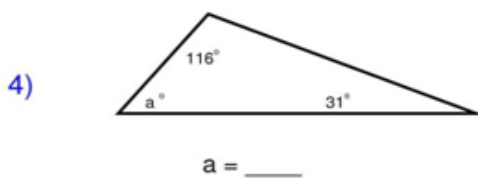
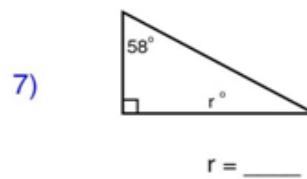
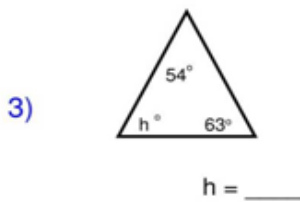
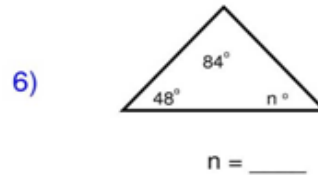
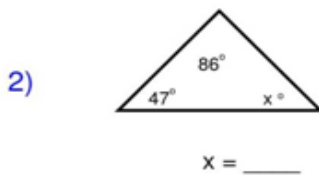
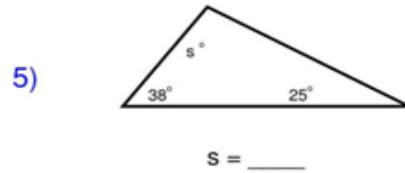
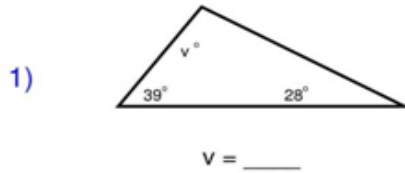


12)



35. ANGLE SUM PROPERTY OF TRIANGLE

Solve for the given variable.



DO YOU KNOW THE VALUE OF PI ?

$\pi = 3.14159\ 26535\ 89793\ 23846\ 26433\ 83279\ 50288\ 41971\ 69399\ 37510\ 58209\ 74944\ 59230\ 78164\ 06286\ 20899\ 86280\ 34825\ 34211\ 70679\ 82148\ 08651\ 32823\dots\dots\dots$

36. INTEGER ADDITION/SUBTRACTION

$3 + (-8) =$

$(-9) - (-4) =$

$7 - 5 =$

$6 - (-4) =$

$(-4) - (-2) =$

$(-4) - 10 =$

$6 - 5 =$

$(-2) - 5 =$

$(-2) - 7 =$

$(-8) + (-2) =$

$8 + 6 =$

$(-9) + 10 =$

$8 + (-10) =$

$2 - (-10) =$

$8 - 5 =$

$8 - (-2) =$

$1 - (-7) =$

$4 + 2 =$

$(-2) + 6 =$

$(-4) - 4 =$

$9 - (-7) =$

$(-1) - 0 =$

$7 - 5 =$

$(-5) + (-10) =$

$(-1) - (-2) =$

$(-5) - (-6) =$

$9 - (-9) =$

$7 - 4 =$

$(-2) + 5 =$

$(-4) - (-10) =$

$8 - (-2) =$

$(-6) + 2 =$

$4 + 1 =$

$$(-8) + 6 =$$

$$(-3) - 6 =$$

$$7 + (-3) =$$

$$(-1) + (-3) =$$

$$7 + (-10) =$$

$$(-8) - (-2) =$$

$$1 - (-6) =$$

$$(-6) + (-1) =$$

$$(-2) - (-7) =$$

$$2 + (-2) =$$

$$3 + (-6) =$$

$$7 - 4 =$$

$$(-5) - (-8) =$$

$$2 - (-6) =$$

$$(-8) - 10 =$$

$$2 - (-1) =$$

$$(-1) - 8 =$$

$$(-10) + 10 =$$

$$4 - 9 =$$

$$3 + 6 =$$

$$5 - 0 =$$

$$6 - 3 =$$

$$5 + 2 =$$

$$(-2) + 1 =$$

$$(-4) + (-2) =$$

$$(-8) + (-8) =$$

$$(-4) - (-1) =$$

$$10 + 4 =$$

$$7 + 9 =$$

$$(-9) - 1 =$$

1. $6 + -12 + 2 =$ _____

2. $11 + 14 + -2 =$ _____

3. $-12 + -5 + -10 =$ _____

4. $5 + 13 + 6 =$ _____

5. $1 + -13 + 14 =$ _____

6. $1 + 14 + 17 =$ _____

7. $6 + 20 + 15 =$ _____

8. $0 + -8 + -7 =$ _____

9. $3 + 10 + -15 =$ _____

10. $3 + -16 + -16 =$ _____

11. $-18 + -5 + 3 =$ _____

12. $18 + 15 + 14 =$ _____

13. $-14 + 4 + 5 =$ _____

14. $-5 + 17 + -15 =$ _____

15. $5 + -16 + 15 =$ _____

16. $3 + -6 + 17 =$ _____

17. $-19 + -8 + -15 =$ _____

18. $-9 + 4 + 15 =$ _____

19. $6 + -12 + 2 =$ _____

20. $11 + 14 + -2 =$ _____

21. $-12 + -5 + -10 =$ _____

22. $5 + 13 + 6 =$ _____

23. $1 + -13 + 14 =$ _____

24. $1 + 14 + 17 =$ _____

25. $6 + 20 + 15 =$ _____

26. $0 + -8 + -7 =$ _____

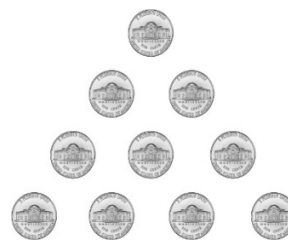
37. INTEGER MULTIPLICATION

Find each product.

$(-6) \times 0 =$	$7 \times 3 =$	$6 \times (-10) =$	$(-3) \times (-5) =$
$8 \times (-2) =$	$(-4) \times (-10) =$	$10 \times (-3) =$	$3 \times 5 =$
$9 \times (-4) =$	$10 \times 4 =$	$10 \times (-4) =$	$5 \times 9 =$
$0 \times (-10) =$	$11 \times 11 =$	$2 \times 3 =$	$(-4) \times (-12) =$
$(-4) \times (-6) =$	$(-10) \times (-2) =$	$3 \times 12 =$	$4 \times 7 =$
$2 \times 4 =$	$3 \times (-3) =$	$(-12) \times (-12) =$	$(-9) \times 5 =$
$9 \times (-7) =$	$9 \times 8 =$	$(-1) \times 10 =$	$(-1) \times (-2) =$
$4 \times (-12) =$	$(-6) \times (-5) =$	$10 \times (-1) =$	$(-7) \times (-9) =$
$7 \times 4 =$	$6 \times (-5) =$	$9 \times (-12) =$	$8 \times 1 =$
$(-2) \times 1 =$	$(-11) \times 2 =$	$12 \times 3 =$	$(-4) \times 3 =$
$7 \times (-8) =$	$11 \times 2 =$	$7 \times 11 =$	$(-9) \times (-12) =$
$(-12) \times 7 =$	$4 \times 10 =$	$8 \times 5 =$	$0 \times 3 =$
$11 \times 7 =$	$1 \times (-6) =$	$(-11) \times 4 =$	$0 \times (-6) =$
$11 \times (-9) =$	$4 \times (-2) =$	$2 \times (-11) =$	$(-5) \times 12 =$
$(-3) \times 1 =$	$(-1) \times 11 =$	$7 \times (-10) =$	$(-7) \times (-3) =$
$(-11) \times (-11) =$	$8 \times 4 =$	$(-3) \times 12 =$	$(-10) \times (-6) =$
$2 \times 7 =$	$(-5) \times 10 =$	$(-7) \times 5 =$	$(-2) \times 2 =$
$6 \times (-4) =$	$10 \times (-11) =$	$(-4) \times (-3) =$	$(-8) \times (-2) =$
$2 \times 12 =$	$(-4) \times 1 =$	$(-4) \times 7 =$	$(-1) \times 5 =$
$4 \times (-8) =$	$(-2) \times (-11) =$	$(-10) \times 7 =$	$(-8) \times 9 =$
$(-1) \times 2 =$	$(-9) \times (-8) =$	$1 \times 5 =$	$(-6) \times 12 =$
$(-10) \times (-4) =$	$(-11) \times (-10) =$	$1 \times (-12) =$	$3 \times (-7) =$
$(-3) \times (-4) =$	$8 \times 12 =$	$2 \times (-8) =$	$0 \times 8 =$
$5 \times (-7) =$	$0 \times 11 =$	$(-10) \times 10 =$	$(-8) \times 0 =$
$4 \times (-7) =$	$11 \times 1 =$	$(-3) \times 8 =$	$(-2) \times (-10) =$

TRY THIS !

Move only three coins and turn the triangle upside down.



Find the missing numbers:

1) _____ \times (-8) = 32

2) 6 \times _____ = 54

3) _____ \times (-10) = 50

4) _____ \times 8 = (-80)

5) 10 \times _____ = 90

6) 9 \times _____ = 27

7) 5 \times _____ = 50

8) 3 \times _____ = 30

9) _____ \times (-9) = (-54)

10) _____ \times (-7) = 70

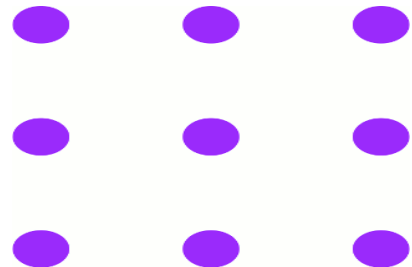
11) 4 \times _____ = (-32)

12) (-2) \times _____ = (-20)

13) _____ \times (-1) = (-10)

14) (-5) \times _____ = 30

TRY THIS.... Join all the dots using four straight lines and without lifting your pencil.



38. DIVISION OF INTEGERS

Find the quotient.

1. $-176 \div 11 =$ _____ 2. $-190 \div 2 =$ _____

3. $33 \div 11 =$ _____ 4. $4 \div 4 =$ _____

5. $54 \div 2 =$ _____ 6. $-10 \div -10 =$ _____

7. $-60 \div -12 =$ _____ 8. $15 \div -5 =$ _____

9. $60 \div -10 =$ _____ 10. $168 \div 7 =$ _____

11. $60 \div -12 =$ _____ 12. $88 \div -8 =$ _____

13. $24 \div 12 =$ _____ 14. $110 \div -11 =$ _____

15. $-108 \div -3 =$ _____ 16. $144 \div 6 =$ _____

Find the missing numbers:

1) _____ $\div (-6) = (-10)$

2) $44 \div$ _____ $= (-4)$

3) $24 \div$ _____ $= (-6)$

4) $48 \div$ _____ $= 4$

5) $(-72) \div$ _____ $= (-9)$

6) _____ $\div 12 = (-6)$

7) $(-48) \div$ _____ $= 8$

8) $50 \div$ _____ $= 5$

9) _____ $\div 11 = (-6)$

10) _____ $\div (-11) = 5$

11) $(-10) \div$ _____ $= 5$

12) _____ $\div 3 = 9$

13) $(-15) \div$ _____ $= 3$

14) _____ $\div (-4) = 6$

15) _____ $\div (-2) = (-6)$

16) _____ $\div (-6) = (-7)$

39. ALGEBRAIC EXPRESSIONS

Write each as an algebraic expression.

The difference of 10 and 5	U decreased by 17
The quotient of 14 and 7	Half of 1
The product of x and 7	X increased by 6
6 squared	The sum of q and 8
Twice q	The product of 8 and 12
The quotient of 18 and n	N cubed

Write each as a verbal expression.

$a + 9$	$5n$
$19 - 3$	$2/Y$
q^2	$2P + Q$
$X / 2$	$Z^2/5$
$n - 14$	$2x - 3$
$x - y$	xy

Evaluate each expression.

5 squared	20 decreased by 17	twice 6
9 times 5	7 squared	the quotient of 96 and 8
20 decreased by 17	7 times 6	10 less than 17
10 increased by 8	The product of 8 and 10	Difference of 5 and 7

Evaluate each using the values given.

1) $y \div 2 + x$; use $x = 1$, and $y = 2$	2) $a - 5 - b$; use $a = 10$, and $b = 4$
3) $p^2 + m$; use $m = 1$, and $p = 5$	4) $y + 9 - x$; use $x = 1$, and $y = 3$
5) $m + p \div 5$; use $m = 1$, and $p = 5$	6) $y^2 - x$; use $x = 7$, and $y = 7$
7) $z(x + y)$; use $x = 6$, $y = 8$, and $z = 6$	8) $x + y + y$; use $x = 9$, and $y = 10$
9) $p^3 + 10 + m$; use $m = 9$, and $p = 3$	10) $6q + m - m$; use $m = 8$, and $q = 3$
11) $p^2 m \div 4$; use $m = 4$, and $p = 7$	12) $y - (z + z^2)$; use $y = 10$, and $z = 2$
13) $z - (y \div 3 - 1)$; use $y = 3$, and $z = 7$	14) $(y + x) \div 2 + x$; use $x = 1$, and $y = 1$
15) $p - (9 - (m + q))$; use $m = 4$, $p = 5$, and $q = 3$	16) $(a^2 - b) \div 6$; use $a = 5$, and $b = 1$

40. SIMPLIFICATION OF EXPRESSIONS/

SOLVING OF EQUATIONS

SIMPLIFY THE FOLLOWING EXPRESSIONS

$-6k + 7k$	$12r - 8 - 12$	$n - 10 + 9n - 3$
$-4x - 10x$	$-2x + 11 + 6x$	$-r - 10r$
$11r - 12r$	$-v + 12v$	$-8x - 11x$
$5n + 11n$	$n + 4 - 9 - 5n$	$12r + 5 + 3r - 5$
$-5 + 9n + 6$	$n - 4 - 9$	$4n - n$
$-3x - 9 + 15x$	$-9k + 8k$	$-16n - 14n$
$-4 + 7(1 - 3m)$	$-5n + 3(6 + 7n)$	$-2n - (9 - 10n)$
$10 - 5(9n - 9)$	$9a + 10(6a - 1)$	$-9(6m - 3) + 6(1 + 4m)$
$-10(1 - 9x) + 6(x - 10)$	$5(-2n + 4) + 2(n + 3)$	$-3(10b + 10) + 5(b + 2)$
$-7(n + 3) - 8(1 + 8n)$		

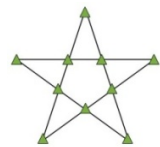
SOLVE THE FOLLOWING SIMPLE EQUATIONS:

1) $26 = 8 + v$	2) $3 + p = 8$	3) $15 + b = 23$
4) $-15 + n = -9$	5) $m + 4 = -12$	6) $x - 7 = 13$
7) $m - 9 = -13$	8) $p - 6 = -5$	9) $v - 15 = -27$
10) $n + 16 = 9$	11) $-104 = 8x$	12) $14b = -56$
13) $-6 = X/18$	14) $10n = 40$	15) $2Y - 32 = -17$

SOLVE THE FOLLOWING EQUATIONS:

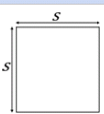
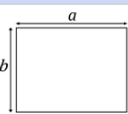
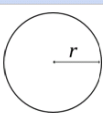
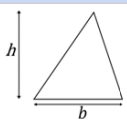
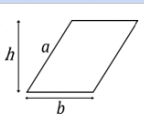
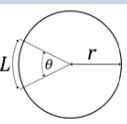
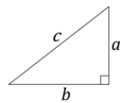
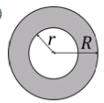

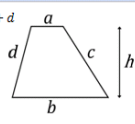
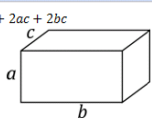
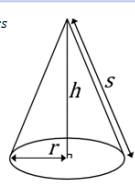
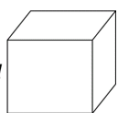
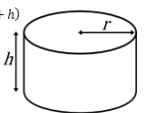

$-20 = -4x - 6x$	$6 = 1 - 2n + 5$	$p - 1 = 5p + 3p - 8$
$a + 5 = -5a + 5$	$8x - 2 = -9 + 7x$	$4m - 4 = 6m$
$5p - 14 = 8p + 4$	$p - 4 = -9 + p$	$-8 = -(x + 4)$
$12 = -4(-6x - 3)$	$14 = -(p - 8)$	$-(7 - 4x) = 9$
$-18 - 6k = 6(1 + 3k)$	$5n + 34 = -2(1 - 7n)$	$3n - 5 = -8(6 + 5n)$
$2(4x - 3) - 8 = 4 + 2x$	$-3(4x + 3) + 4(6x + 1) = 43$	$-(1 + 7x) - 6(-7 - x) = 36$
$24a - 22 = -4(1 - 6a)$	$-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$	

.....
CAN YOU SOLVE THIS? An intelligent trader travels from 1 place to another carrying 3 bags having 30 coconuts each. No bag can hold more than 30 coconuts. On the way he passes through 30 check points and on each checkpoint he has to give 1 coconut for each bag he is carrying. How many coconuts are left in the end?



IMPORTANT FORMULAE

<p>ARITHMETIC PROPERTIES</p> <p>ASSOCIATIVE $a(bc) = (ab)c$ COMMUTATIVE $a + b = b + a$ and $ab = ba$ DISTRIBUTIVE $a(b + c) = ab + ac$</p> <p>ARITHMETIC OPERATIONS EXAMPLES</p> $ab + ac = a(b + c) \quad \frac{a}{b} - \frac{c}{d} = \frac{ad - bc}{bd}$ $a\left(\frac{b}{c}\right) = \frac{ab}{c} \quad \frac{a-b}{c-d} = \frac{b-a}{d-c}$ $\frac{\left(\frac{a}{b}\right)}{c} = \frac{a}{bc} \quad \frac{a+b}{c} = \frac{a}{c} + \frac{b}{c}$ $\frac{\frac{a}{b}}{\frac{c}{d}} = \frac{ad}{bc} \quad \frac{ab+ac}{a} = b + c, a \neq 0$ $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd} \quad \frac{\left(\frac{a}{b}\right)}{\left(\frac{c}{d}\right)} = \frac{ad}{bc}$	<p>EXPONENT PROPERTIES</p> $a^n a^m = a^{n+m}$ $(a^n)^m = a^{nm}$ $(ab)^n = a^n b^n$ $a^{-n} = \frac{1}{a^n}$ $\left(\frac{a}{b}\right)^{-n} = \left(\frac{b}{a}\right)^n = \frac{b^n}{a^n}$ $\frac{a^n}{a^m} = a^{n-m} = \frac{1}{a^{m-n}}$ $a^0 = 1, a \neq 0$ $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$ $\frac{1}{a^{-n}} = a^n$ $\frac{a^m}{a^n} = \left(a^{\frac{1}{n}}\right)^m = (a^n)^{\frac{1}{m}}$	<p>PROPERTIES OF INEQUALITIES</p> <p>If $a < b$ then $a + c < b + c$ and $a - c < b - c$ If $a < b$ and $c > 0$ then $ac < bc$ and $a/c < b/c$ If $a < b$ and $c < 0$ then $ac > bc$ and $a/c > b/c$</p> <p>PROPERTIES OF COMPLEX NUMBERS</p> $i = \sqrt{-1}$ $i^2 = -1$ $\sqrt{-a} = i\sqrt{a}, a \geq 0$ $(a + bi) + (c + di) = a + c + (b + d)i$ $(a + bi) - (c + di) = a - c + (b - d)i$ $(a + bi)(c + di) = ac - bd + (ad + bc)i$ $(a + bi)(a - bi) = a^2 + b^2$ $ a + bi = \sqrt{a^2 + b^2}$ $\overline{(a + bi)} = a - bi$ $\overline{(a + bi)}(a + bi) = a + bi ^2$ $\frac{1}{(a + bi)} = \frac{(a - bi)}{(a + bi)(a - bi)} = \frac{a - bi}{a^2 + b^2}$
<p>QUADRATIC EQUATION</p> <p>For the equation $ax^2 + bx + c = 0$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$</p>	<p>COMMON FACTORING EXAMPLES</p> $x^2 - a^2 = (x + a)(x - a)$ $x^2 + 2ax + a^2 = (x + a)^2$ $x^2 - 2ax + a^2 = (x - a)^2$ $x^2 + (a + b)x + ab = (x + a)(x + b)$ $x^3 + 3ax^2 + 3a^2x + a^3 = (x + a)^3$ $x^3 + a^3 = (x + a)(x^2 - ax + a^2)$ $x^3 - a^3 = (x - a)(x^2 + ax + a^2)$ $x^{2n} - a^{2n} = (x^n - a^n)(x^n + a^n)$	<p>ABSOLUTE VALUE</p> $ a = \begin{cases} a, & \text{if } a \geq 0 \\ -a, & \text{if } a < 0 \end{cases}$ $ a = -a $ $ a \geq 0$ $ ab = a b $ $\left \frac{a}{b}\right = \frac{ a }{ b }$ $ a + b \leq a + b $
<p>RADICAL PROPERTIES</p> <p>$a, b \geq 0$ for even n</p> $\sqrt[n]{a} = a^{\frac{1}{n}}$ $\sqrt[m]{\sqrt[n]{a}} = \sqrt[mn]{a}$ $\sqrt[n]{ab} = \sqrt[n]{a}\sqrt[n]{b}$ $\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$ $\sqrt[n]{a^n} = a$, if n is odd $\sqrt[n]{a^n} = a $, if n is even	<p>LOGARITHM PROPERTIES</p> <p>if $y = \log_b x$ then $b^y = x$ $\log_b b = 1$ and $\log_b 1 = 0$ $\log_b b^x = x$ $b^{\log_b x} = x$ $\log_a x = \frac{\log_b x}{\log_b a}$ $\log_b (x^r) = r \log_b x$ $\log_b (xy) = \log_b x + \log_b y$ $\log_b \left(\frac{x}{y}\right) = \log_b x - \log_b y$ </p>	

<p>SQUARE</p> $P = 4s$ $A = s^2$ 	<p>RECTANGLE</p> $P = 2a + 2b$ $A = ab$ 	<p>CIRCLE</p> $P = 2\pi r$ $A = \pi r^2$ 
<p>TRIANGLE</p> $P = a + b + c$ $A = \frac{1}{2}bh$ 	<p>PARALLELOGRAM</p> $P = 2a + 2b$ $A = bh$ 	<p>CIRCULAR SECTOR</p> $L = \pi r^2 \frac{\theta}{360^\circ}$ $A = \pi r^2 \frac{\theta}{360^\circ} L$ 
<p>PYTHAGOREAN THEOREM</p> $a^2 + b^2 = c^2$ $c = \sqrt{a^2 + b^2}$ 	<p>CIRCULAR RING</p> $A = \pi(R^2 - r^2)$ 	<p>SPHERE</p> $S = 4\pi r^2$ $V = \frac{4\pi r^3}{3}$ 
<p>TRAPEZOID</p> $P = a + b + c + d$ $A = h \frac{a+b}{2}$ 	<p>RECTANGULAR BOX</p> $A = 2ab + 2ac + 2bc$ $V = abc$ 	<p>RIGHT CIRCULAR CONE</p> $A = \pi r^2 + \pi r s$ $s = \sqrt{r^2 + h^2}$ $V = \frac{1}{3}\pi r^2 h$ 
<p>CUBE</p> $A = 6l^2$ $V = l^3$ 	<p>CYLINDER</p> $A = 2\pi r(r + h)$ $V = \pi r^2 h$ 	<p>FRUSTUM OF A CONE</p> $V = \frac{1}{3}\pi h(r^2 + rR + R^2)$ 

The Greek Alphabet

α	β	γ	δ	ε	ζ
alpha	beta	gamma	delta	epsilon	zeta
η	θ	ι	κ	λ	μ
eta	theta	iota	kappa	lambda	mu
ν	ξ	ο	π	ρ	σ/ς
nu	xi	omicron	pi	rho	sigma
τ	υ	φ	χ	ψ	ω
tau	upsilon	phi	chi	psi	omega

You are wrong if you think Mathematics is not fun.....