GPLMS
Revision Programme

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

GRADE 6
Booklet

Learner's name: _____

School name: _____

Day 1.

1.
a) **Study**:

	HTh	T Th	Th	H	T	U	
6 units						6	6×1
6 tens					6	0	6×10
6 hundreds				6	0	0	6×100 or $6 \times 10 \times 10$
6 thousands			6	0	0	0	6×1000 or $6 \times 10 \times 10 \times 10$
6 ten-thousands		6	0	0	0	0	6×10000 or $6 \times 10 \times 10 \times 10 \times 10$
6 hundred-thousands	6	0	0	0	0	0	6×100000 or $6 \times 10 \times 10 \times 10 \times 10 \times 10$

b)   Our number system is a **decimal number system**. This means that the place value of any digit in a number is **10 times** the place value of the digit on its right.

c)

Hundred-thousands	Ten-thousands	Thousands	Hundreds	Tens	Units
H Th	T Th	Th	H	T	U
100 000	$\times 10$ 10 000	$\times 10$ 1 000	$\times 10$ 100	$\times 10$ 10	$\times 10$ 1

d)   Write down another name for six thousand-thousands. _____

2.   Use digits to write down each of the following numbers.

a)   Twenty-six thousands = _____

b)   Seven hundred-thousands = _____

c)   Sixty-eight hundred-thousands = _____

d)   Two million = _____

e)   Fifty-four ten-thousands = _____

f)   Fifty-four hundred-thousands = _____

3.   Write each of the expanded numbers in short form.

a) $6 \times 100\ 000 + 4 \times 10\ 000 + 2 \times 100 + 5$ = _____

b) $8\ 000\ 000 + 50\ 000 + 3 \times 1000 + 2 \times 10$ = _____

c)   24 HTh + 3 T Th + 5 Th + 2H + 9U   = _____

4.   Complete:

a)   The tens digit in 74 863 is _____

b)   The hundreds digit in 395 491 is _____

c)   The thousands digit in 837 526 is _____

d)   The ten-thousands digit in 759 167 is _____

e)   The hundred-thousands digit in 2 469 837 is _____

5.   Complete:

a)   The value of digit 5 in 4 356 869 is _____

b)   The value of digit 2 in 5 284 976 is _____

c)   The value of digit 7 in 39 726 504 is _____

6.   Write down the following numbers from the smallest to the greatest.

a)   463 628 , 433 628 , 473 628 , 453 628

_____

b)   325 783 , 327 358 , 323 875 , 325 873

_____

7.   Write down 634 564, 634 864, 634 464, 634 664 from greatest to smallest.

_____

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8.   **Remember** the symbol " $>$ " is read "**is greater than**" and
                  the symbol " $<$ " is read "**is smaller than**".

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9.   Write " $>$ " or " $<$ " between each pair of numbers to make correct sentences.

      Example: 527 436 $>$ 527 364 | a) 415 974 _____ 415 947

b) 636 204 _____ 636 024 | c) 144 888 _____ 144 788

d) 254 876 _____ 256 876 | e) 726 349 _____ 716 449

10.   Complete:

a)   The number that is 10 more than 1 498 is _____

b)   The number that is 10 less than 1 498 is _____

c)   The number that is 100 more than 5 897 is _____

d)   The number that is 100 less than 5 897 is _____

e)   The number that is 1000 more than 24 975 is _____

f)   The number that is 1000 less than 24 975 is _____

g)   The number that is 10 000 more than 36 812 is _____

h)   The number that is 10 000 less than 36 812 is _____

i)   The number that is 100 000 more than 148 664 is _____

j)   The number that is 100 000 less than 148 664 is _____

k)   The number that is 30 000 more than 429 735 is _____

l)   The number that is 40 000 less than 429 735 is _____

Day 2.

1.   Write down the next two numbers in each sequence.

a)   3 456; 3 457; 3 458; _____

b)   7 434; 7 433; 7 432; _____

c)   15 647; 15 657; 15 667; _____

d)   34 535; 34 525; 34 515; _____

e)   24 583; 24 683; 24 783; _____

f)   36 419; 36 319; 36 219; _____

g)   45 843; 46 843; 47 843; _____

h)   58 631; 57 631; 56 631; _____

2.   Write down the answers as quickly as you can.

| a) $5 + 3 =$ ____	b) $6 + 5 =$ ____	c) $9 + 3 =$ ____	d) $7 + 6 =$ ____
$7 + 2 =$ ____	$7 + 4 =$ ____	$7 + 5 =$ ____	$8 + 5 =$ ____
$3 + 4 =$ ____	$8 + 3 =$ ____	$8 + 4 =$ ____	$9 + 4 =$ ____
$2 + 3 =$ ____	$9 + 2 =$ ____	$6 + 6 =$ ____	$4 + 9 =$ ____
e) $11 + 4 =$ ____	f) $12 + 3 =$ ____	g) $13 + 4 =$ ____	h) $14 + 3 =$ ____
$11 + 6 =$ ____	$12 + 6 =$ ____	$13 + 6 =$ ____	$14 + 5 =$ ____
$11 + 9 =$ ____	$12 + 8 =$ ____	$13 + 7 =$ ____	$14 + 6 =$ ____
i) $15 + 2 =$ ____	j) $16 + 1 =$ ____	k) $17 + 1 =$ ____	l) $13 + 3 =$ ____
$15 + 4 =$ ____	$16 + 2 =$ ____	$17 + 2 =$ ____	$14 + 4 =$ ____
$15 + 5 =$ ____	$16 + 4 =$ ____	$17 + 3 =$ ____	$16 + 3 =$ ____

3.　Complete the following addition sums.

a)　$12 + 1 + 7 =$ ____

　$11 + 2 + 7 =$ ____

　$13 + 2 + 5 =$ ___

b)　$4 + 1 + 15 =$ ____

　$6 + 1 + 13 =$ ____

　$7 + 1 + 12 =$ ____

c)　$14 + 5 =$ ___

　$14 + 7 =$ ___

　$14 + 9 =$ ___

d)　$15 + 6 =$ ___

　$15 + 8 =$ ___

　$15 + 9 =$ ___

e)　$16 + 6 =$ ____

　$16 + 8 =$ ____

　$16 + 9 =$ ____

f)　$17 + 5 =$ ____

　$17 + 7 =$ ____

　$17 + 8 =$ ____

g)　$18 + 6 =$ ___

　$18 + 7 =$ ___

　$18 + 9 =$ ___

h)　$19 + 5 =$ ___

　$19 + 7 =$ ___

　$19 + 9 =$ ___

4.　Fill up tens to complete. **Example**:　$1\overset{\bullet}{7} + 9 + \overset{\bullet}{3} = 29$ because $17 + 3 = 20$.

a)　$14 + 8 + 6 =$ _____

　$16 + 9 + 4 =$ _____

　$18 + 7 + 2 =$ _____

b)　$11 + 7 + 9 =$ _____

　$13 + 9 + 7 =$ _____

　$15 + 8 + 5 =$ _____

c)　$12 + 9 + 8 =$ _____

　$19 + 8 + 1 =$ _____

　$14 + 9 + 6 =$ _____

5.　Write down the missing numbers on each number line.

a)

1650　　　　1750　1800

b)

31500　　　31700　31800

c)

　43250　43500　　　44000
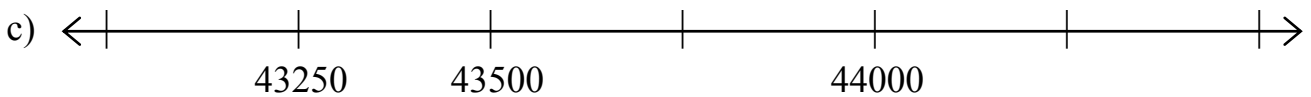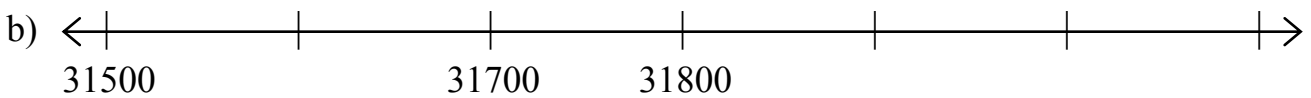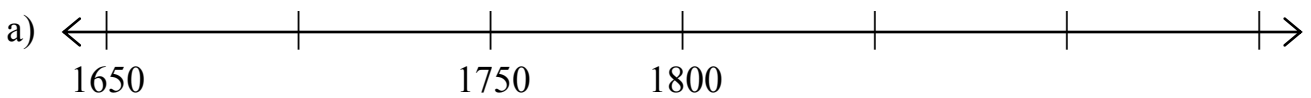
6.　Write down the next 2 numbers in each sequence.

a)　2 540; 2 560; 2 580; _____

b)　6 380; 6 360; 6 340; _____

c)　1 450; 1 475; 1 500; _____

d)　1 775; 1 750; 1 725; _____

e)　26 470; 26 670; 26 870; _____

f)   87 853; 87 653; 87 453; _____

g)   43 175; 43 675; 44 175; _____

h)   79 700; 79 200; 78 700; _____

7.   Write down the next 2 numbers in each sequence.
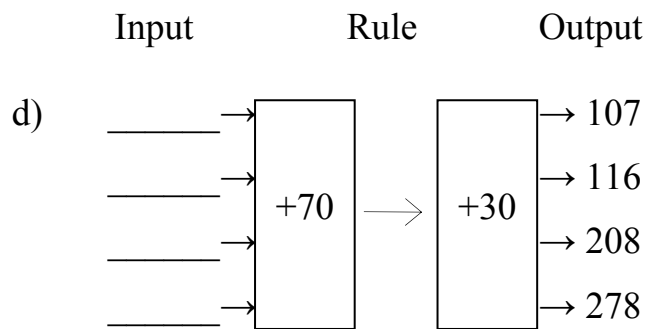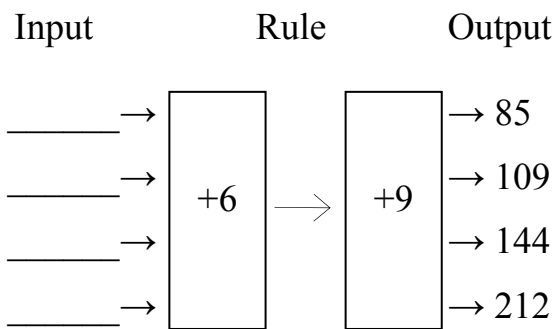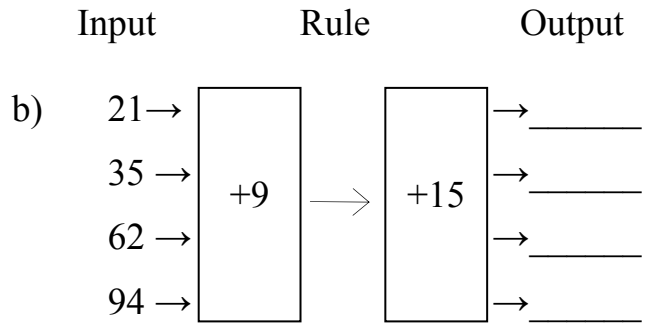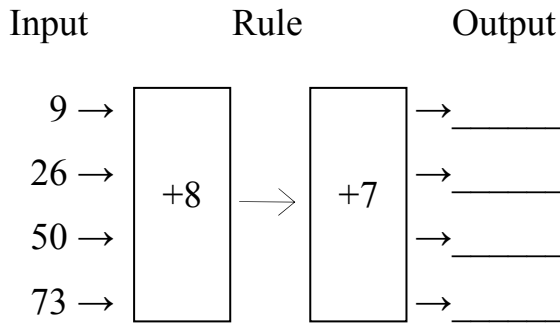
a)   2 764; 2 766; 2 768; _____

b)   5 346; 5 344; 5 342; _____

c)   3 645; 3 648; 3 651; _____

d)   4 968; 4 965; 4 962; _____

e)   1 745; 1 750; 1 755; _____

f)   6 325; 6 320; 6 315; _____

g)   1 838; 1 843; 1 848; _____

h)   9 524; 9 520; 9 516; _____

8.   Write down the next 2 numbers in each sequence.

a)   21 570 ; 21 580 ; 21 590 ; _____

b)   33 440 ; 33 430 ; 33 420 ; _____

c)   52 540 ; 52 560 ; 52 580 ; _____

d)   46 380 ; 46 360 ; 46 340 ; _____

e)   74 250 ; 74 200 ; 74 150 ; _____

f)   17 600 ; 17 550 ; 17 500 ; _____

g)   83 700 ; 83 800 ; 83 900 ; _____

h)   48 800 ; 48 700 ; 48 600 ; _____

i)   11 450 ; 11 475 ; 11 500 ; _____

j)   61 775 ; 61 750 ; 61 725 ; _____

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Day 3.

1.   Complete each flow-diagram.

	Input	Rule	Output			Input	Rule	Output

a)
9 → [+8] → [+7] → _____
26 → _____
50 → _____
73 → _____

b)
21→ [+9] → [+15] → _____
35 → _____
62 → _____
94 → _____

c)
_____ → [+6] → [+9] → 85
_____ → → 109
_____ → → 144
_____ → → 212

d)
_____ → [+70] → [+30] → 107
_____ → → 116
_____ → → 208
_____ → → 278

2.   Complete each number-chain.

a)   63 $\xrightarrow{+4}$ _____ $\xrightarrow{+5}$ _____ $\xrightarrow{+6}$ _____

b)   46 $\xrightarrow{+7}$ _____ $\xrightarrow{+8}$ _____ $\xrightarrow{+3}$ _____

c)   87 $\xrightarrow{+8}$ _____ $\xrightarrow{+9}$ _____ $\xrightarrow{+8}$ _____

d)   168 $\xrightarrow{-8}$ _____ $\xrightarrow{-8}$ _____ $\xrightarrow{-7}$ _____

e)   295 $\xrightarrow{-9}$ _____ $\xrightarrow{-9}$ _____ $\xrightarrow{-9}$ _____

f)   343 $\xrightarrow{-8}$ _____ $\xrightarrow{-8}$ _____ $\xrightarrow{-8}$ _____

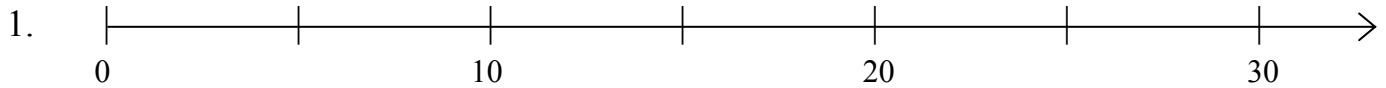g)   132 $\xrightarrow{+9}$ _____ $\xrightarrow{-8}$ _____ $\xrightarrow{-7}$ _____

h)   254 $\xrightarrow{+12}$ _____ $\xrightarrow{-15}$ _____ $\xrightarrow{+19}$ _____

3.   **Addition of 3-digit and/or 4-digit numbers**

"Break-down" both numbers and then add units, tens, hundreds and thousands.

Example:	$247 + 368$		or		$7 + 8 = 15$
	$=$	$200 + 40 + 7 + 300 + 60 + 8$		and	$40 + 60 = 100$
	$=$	$200 + 300 + 40 + 60 + 7 + 8$		and	$\underline{200 + 300 = 500}$
	$=$	$500 + 100 + 15$		means	$\underline{247 + 368 = 615}$
	$=$	615			

a) $593 + 378$ or _____

_____   _____

_____   _____

_____   _____

_____   _____

b) $3274 + 869$ or $4 + 9$ = _____

_____ $70 + \rule{1cm}{0.4pt}$ = _____

_____ $200 + \rule{1cm}{0.4pt}$ = _____

_____ $3000 + \rule{1cm}{0.4pt}$ = _____

_____   _____

4.   Use the "vertical-column method" to add the given numbers.

a)
$$\begin{array}{r} 5641 \\ + 2168 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 3158 \\ + 4903 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 3371 \\ + 4193 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 4602 \\ + 3988 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 4876 \\ + 3429 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 1738 \\ + 5291 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 4444 \\ + 6666 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 8282 \\ + 2828 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 5878 \\ + 2124 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 4756 \\ + 6574 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 2652 \\ + 7289 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 3758 \\ + 4692 \\ \hline \end{array}$$

5. Look at the given numbers carefully and then write down the answers as quickly as you can.

a) 3 + 48 + 17 = _____   b) 35 + 47 + 5 = _____   c) 94 + 278 + 6 = _____

     4 + 69 + 26 = _____   58 + 69 + 2 = _____   87 + 178 + 13 = _____

     9 + 76 + 31 = _____   47 + 38 + 13 = _____   75 + 498 + 25 = _____

6. We know that an easy way of adding 9, is to add 10 and subtract 1.
   What is an easy way of   a) adding 99   b) subtracting 99?

a)   _____

b)   _____

7. Complete each addition chain.

a)   200 $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____

b)   374 $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____

c)   649 $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____

d)   2 168 $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____ $\xrightarrow{+99}$ _____

e)   727 $\xrightarrow{+101}$ _____ $\xrightarrow{+101}$ _____ $\xrightarrow{+101}$ _____

f)   3 938 $\xrightarrow{+98}$ _____ $\xrightarrow{+98}$ _____ $\xrightarrow{+98}$ _____

Day 4.

1. Complete:

a) 99 999 + 1   = _____   b) 99 990 + 10   = _____

c) 999 999 + 1   = _____   d) 999 990 + 10   = _____

e) 4 999 999 + 1 = _____   f) 4 999 990 +10 = _____

2. Calculate:

a)   2 6 3 7 5 4   b)   5 6 4 7 3 1   c)   6 9 4 4 2 4
          + 4 7 5 3 2 8   + 3 8 2 6 8 4   + 1 8 3 7 9 6
          _____   _____   _____

d)   4 7 3 2 9   e)   6 8 4 9 5   f)   4 8 7 4 5 8
             2 9 5 8   1 6 6 8 0   1 4 3 5 7 7
          + 1 4 5 3 6   + 3 7 8 2 7   +   4 8 3 7 4
          _____   _____   _____

Day 5.

1.

0   10   20   30

Use the above number line to round off each of the given numbers to the nearest 10.

Examples:
a)   14 rounded off to the nearest 10 is 10.   (14 is closer to 10 than to 20)
b)   17 rounded off to the nearest 10 is 20.   (17 is closer to 20 than to 10)
c)   15 rounded off to the nearest 10 is 20.   (15 is equally far from 10 and 20)

d)   28 rounded off to the nearest 10 is _____. (28 is closer to _____ than to _____)

e)   23 rounded off to the nearest 10 is _____. (23 is closer to _____ than to _____)

f)   25 rounded off to the nearest 10 is _____. (25 is _____)

2.

230   A   240   B   C   250
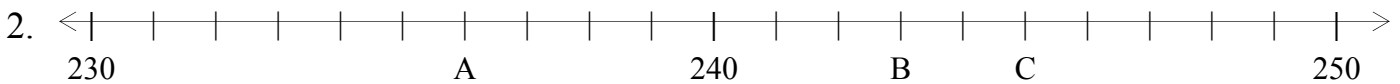
a)   A represents the number _____ and is closer to _____ than to _____

b)   The number _____, represented by A, rounded off to the nearest 10 is _____

c)   The number _____, represented by B, rounded off to the nearest 10 is _____

d)   The number _____, represented by C, rounded off to the nearest 10 is _____

3.

1400   A   B   1500   C   1600
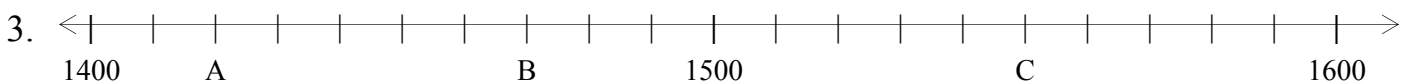
a)   The number _____, represented by A, rounded off to the nearest 100 is _____

b)   The number _____, represented by B, rounded off to the nearest 100 is _____

c)   The number _____, represented by C, rounded off to the nearest 100 is _____

4.

3000   A   4000   B   C   5000
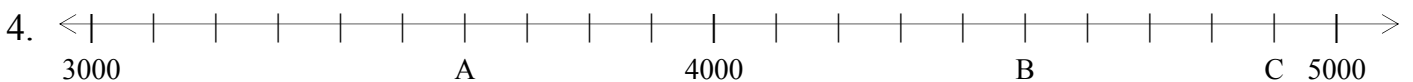
a)   The numbers represented by A, B and C are _____

b)   The number _____, represented by A, rounded off to the nearest 1000 is _____

c)   The number _____, represented by B, rounded off to the nearest 1000 is _____

d)   The number _____, represented by C, rounded off to the nearest 1000 is _____

5.

	Number	Number rounded off to		
		the nearest 10	the nearest 100	the nearest 1000
a)	6 793			
b)	587 645			
c)	762 154			
d)	875 387			

6. Estimate the answers by rounding off the 4-digit numbers to the nearest 100 and the bigger numbers to the nearest 1 000.

The symbol "≈" reads "**is approximately equal to**".

Example:
a)   2 653 + 2 348 ≈ 2 700 + 2 300 ≈ 5 000 to the nearest 100.
b)   52 496 + 15 796 ≈ 52 000 + 16 000 ≈ 68 000 to the nearest 1 000.

---

c)   7 843 + 2 178   ≈ _____

_____

d)   92 688 + 68 253 ≈ _____

_____

e)   63 512 + 16 289 ≈ _____

_____

Day 6.

1.   Write down the answers as quickly as you can.

a) 10 - 3 = _____
10 - 5 = _____
10 - 8 = _____
10 - 9 = _____

b) 11 - 2 = _____
11 - 4 = _____
11 - 6 = _____
11 - 8 = _____

c) 12 - 4 = _____
12 - 5 = _____
12 - 8 = _____
12 - 9 = _____

d) 13 - 4 = _____
13 - 6 = _____
13 - 7 = _____
13 - 8 = _____

e) 14 - 3 = _____
14 - 6 = _____
14 - 7 = _____
14 - 9 = _____

f) 15 - 4 = _____
15 - 7 = _____
15 - 8 = _____
15 - 9 = _____

g) 16 - 7 = _____
16 - 8 = _____
17 - 8 = _____
17 - 9 = _____

h) 18 - 9 = _____
18 - 18 = _____
19 - 9 = _____
19 - 19 = _____

2.   Calculate:

a) 16 - 3 - 4 = _____ | b) 17 - 5 - 4 = _____ | c) 18 - 5 - 4 = _____ | d) 19 - 6 - 5 = _____

    16 - 7 - 2 = _____ | 17 - 6 - 5 = _____ | 18 - 8 - 5 = _____ | 19 - 7 - 8 = _____

    16 - 5 - 3 = _____ | 17 - 8 - 2 = _____ | 18 - 9 - 2 = _____ | 19 - 8 - 6 = _____

3.   Complete:

a) 35 is 7 more than _____   b) 44 is 6 more than _____

c) 58 is 9 more than _____   d) 87 is 20 more than _____

e) 73 is 40 more than _____   f) 129 is 30 more than _____

g) 163 is 70 more than _____   h) 212 is 50 more than _____

4.   Write down the next 4 numbers in each sequence.

a)   174 ; 173 ; 172 ;   _____

b)   174 ; 172 ; 170 ;   _____

c)   174 ; 171 ; 168 ;   _____

d)   265 ; 260 ; 255 ;   _____

e)   340 ; 330 ; 320 ;   _____

5.   Complete each of the following number chains.

a)   68 $\xrightarrow{-8}$ _____ $\xrightarrow{-8}$ _____ $\xrightarrow{-8}$ _____

b)   135 $\xrightarrow{-9}$ _____ $\xrightarrow{-9}$ _____ $\xrightarrow{-9}$ _____

c)   241 $\xrightarrow{-8}$ _____ $\xrightarrow{-9}$ _____ $\xrightarrow{-8}$ _____

d)   374 $\xrightarrow{-5}$ _____ $\xrightarrow{-7}$ _____ $\xrightarrow{-10}$ _____

e)   528 $\xrightarrow{-20}$ _____ $\xrightarrow{-50}$ _____ $\xrightarrow{-25}$ _____

6.   Write down the next 3 numbers in each sequence.

a)   4 900 ; 4 800 ; 4 700 ; _____

b)   8 650 ; 8 600 ; 8 550 ; _____

c)   5 380 ; 5 360 ; 5 340 ; _____

d)   15 700 ; 15 680 ; 15 660 ; _____

e)   23 400 ; 23 375 ; 23 350 ; _____

f)   34 875 ; 34 850 ; 34 825 ; _____

7.   "Break-down" both numbers, subtract the units from one another, the tens from one another and the hundreds from one another.

Remember to subtract 236 means to subtract 200, then subtract 30 and then subtract 6 or subtract 6, then subtract 30 and then subtract 200.

Thus a)   478 - 236 = 400 + 70 + 8 - 200 - 30 - 6 = 200 + 40 + 2 = 242
    or   478 - 236 = 400 + 70 + 8 - 6 - 30 - 200 = 2 + 40 + 200 = 242

or   b)   8 -   6 =   2   or   c)   478 = 400 + 70 + 8   or   d) 4 7 8
     and   70 -   30 =   40   - 236 = - 200 - 30 - 6   - 2 3 6
     and   400 - 200 = 200   478 - 236 = 200 + 40 + 2   2 4 2
           478 - 236 = 242   = 242

8.   Calculate 985 - 642 as set out in (c) and (d) above.

    985   =   _____ + _____ + _____   or   9 8 5

_____ − 642   = − _____ − _____ − _____   −   6 4 2

985 − 642   = _____   _____

        = _____

9.   Use the "vertical-column method" to calculate.

a)   2 6 8 4   b)   4 9 2 7   c)   7 5 6 8   d)   9 6 4 9
    − 1 5 4 3   − 2 3 1 5   − 5 3 2 3   − 6 4 3 5
    _____   _____   _____   _____

Day 7.

1.   Fill in the missing numbers to make correct sentences:

a) 346 = 300 + _____ + 6   or 346 = 300 + 30 + _____   or 346 = 200 + _____ + 6

b) 575 = 500 + 70 + _____   or 575 = 500 + _____ + 15   or 575 = 400 + _____ + 5

c) 2869 = 2000 + _____ + 60 + 9   or 2000 + 700 + _____+ 9   or 1000 + _____ + 60 + 9

d) 4283 = 4000 + ____ + ____ + 3 or 4000 + 100 + ____ + 3   or 3000 + ____ + 70 + ___

2.   Use the "breaking-down method" to calculate.

a)   2674 and 952   b)   3586 and 1854

a)   2 674 = 1000 + 1600 + 70 + 4   b)   3 586 = 2000 + _____

       − 952 = − 900 − _____ − _____   − 1 854 = − 1 000 − _____

_____ = _____   _____ = _____

       = _____   = _____

3.   Use the "vertical-column method" to subtract the smaller number from the bigger
       number in each of the following.

Example:

   4 13 3 16

   5 3 4 6

 −2 4 2 8

  2 9 1 8

Step 1: We cannot subtract 8U from 6U
Step 2: We write 46 as 3T + 16U
Step 3: 16U − 8U = 8U
Step 4: 3T − 2T = 1T
Step 5: We cannot subtract 4H from 3H
Step 6: We write 53H as 40H + 13H
Step 7: 13H − 4H = 9H and 4Th − 2Th = 2Th

Do you see that 5346 was actually written as 4000 + 1300 + 30 + 16?

a)   6 5 7 2   b)   4 5 5 4   c)   3 8 2 9   d)   5 7 4 5
      − 2 3 4 7   − 2 4 6 1   − 2 7 9 4   − 3 8 3 2

       _____   _____   _____   _____

e)   4 7 8 3 9   f)   6 8 1 1 2   g)   5 3 8 2 4 5   h)   4 7 6 0 0
      − 1 7 2 5 6   − 1 5 2 5 8   − 6 8 4 3 2   − 2 8 5 9 7

       _____   _____   _____   _____

i)	2 6 7 6 4 9	j)	5 1 8 4 7 6	k)	7 3 9 5 6 2	l)	3 8 5 0 0 0
	− 2 4 3 7 2 6		− 4 1 5 2 5 8		− 4 2 6 8 4 3		− 3 5 3 7 6 3
	_____		_____		_____		_____

Day 8.

1.   Complete:

a)   13 + 9 = 22 means 22 – 9 = _____   and 22 – 13 = _____

b)   27 + 58= 85 means 85 – 58 = _____   and 85 – 27 = _____

c)   17 – 8 = 9 means 9 + _____ = 17   and 17 – 9 = _____

d)   96 – 24 = 72 means _____ and _____

2.   Calculate:

a)	3 2 8 6 7	b)	5 6 4 8 9	c)	8 3 5 7 9	d)	9 2 8 4 8
	− 1 2 7 4 3		− 2 4 6 7 5		− 4 7 6 6 6		− 6 7 5 1 9
	_____		_____		_____		_____

3.   Check the answers in question 2 (a) - (d) by doing an addition sum.

>   3 12   1
> **Example**: If   7 6 4 2 3   then   2 2 2 6 1
>   − 5 4 1 6 2   + 5 4 1 6 2
>   2 2 2 6 1   7 6 4 2 3

a)		b)		c)		d)	
	……………..		……………..		_____		_____
	+ 1 2 7 4 3		+ 2 4 6 7 5				
	_____		_____		_____		_____

4.   Use the "vertical-column method" to answer the following questions.

a)   Calculate the sum of 15 674 and 37 325.

b)   Calculate the difference between 42 863 and 25 431.

c)   How much is 84 581 more than 63 763?

a)	_____	b)	_____	c)	_____
	_____		_____		_____
	_____		_____		_____
	_____		_____		_____

Day 9.

1. Complete each of the following multiplication grids.

    What do you notice about row 2 and row 3 in a) - d)?

a)

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

b)

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

c)

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

d)

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

e)

×	1	2	3	4	5	6	7	8	9	10
7										

2. Complete:

a) $3 \times 10 =$ _____
     $4 \times 10 =$ _____
     $5 \times 10 =$ _____
     $6 \times 10 =$ _____

b) $7 \times 10 =$ _____
     $8 \times 10 =$ _____
     $9 \times 10 =$ _____
     $10 \times 10 =$ _____

c) $2 \times 20 =$ _____
     $3 \times 20 =$ _____
     $4 \times 20 =$ _____
     $5 \times 20 =$ _____

d) $2 \times 30 =$ _____
     $3 \times 30 =$ _____
     $2 \times 40 =$ _____
     $2 \times 50 =$ _____

3.   Write down the answers as quickly as you can.

a) $10 \times 2 =$ _____   b) $10 \times 3 =$ _____   c) $10 \times 4 =$ _____   d) $10 \times 5 =$ _____

    $9 \times 2 =$ _____ $9 \times 3 =$ _____ $9 \times 4 =$ _____ $9 \times 5 =$ _____

    $8 \times 2 =$ _____ $8 \times 3 =$ _____ $8 \times 4 =$ _____ $8 \times 5 =$ _____

    $7 \times 2 =$ _____ $7 \times 3 =$ _____ $7 \times 4 =$ _____ $7 \times 5 =$ _____

e) $5 \times 2 =$ _____   f) $7 \times 2 =$ _____   g) $4 \times 3 =$ _____   h) $3 \times 4 =$ _____

    $5 \times 4 =$ _____ $7 \times 4 =$ _____ $8 \times 3 =$ _____ $6 \times 4 =$ _____

    $6 \times 2 =$ _____ $8 \times 2 =$ _____ $4 \times 5 =$ _____ $3 \times 3 =$ _____

    $6 \times 4 =$ _____ $8 \times 4 =$ _____ $8 \times 5 =$ _____ $6 \times 3 =$ _____

i) $7 \times 1 =$ _____   j) $4 \times 4 =$ _____   k) $9 \times 3 =$ _____   l) $10 \times 2 =$ _____

    $8 \times 2 =$ _____ $5 \times 5 =$ _____ $8 \times 4 =$ _____ $9 \times 5 =$ _____

    $5 \times 3 =$ _____ $3 \times 3 =$ _____ $7 \times 5 =$ _____ $8 \times 3 =$ _____

    $6 \times 5 =$ _____ $2 \times 2 =$ _____ $6 \times 2 =$ _____ $7 \times 4 =$ _____

4.

a)   Because $1 \times 2 = 2$, $2 \times 2 = 4$, $3 \times 2 = 6$, $4 \times 2 = 8$, $5 \times 2 = 10$ we say that 2,4,6,8 and 10 are the first 5 multiples of 2.

b)   Thus 12 is the fourth multiple of 3 and 35 is the seventh multiple of 5 or 35 is the fifth multiple of 7.

c)   Also, any multiple of 2 is called an **even** number. This means that whole numbers in which the units digit is 0,2,4,6, or 8 will be **even** numbers.

d)   Numbers in which the units digit is 1,3,5,7 or 9 are called **odd** numbers.

5.   Write down the multiples of

a)   2 between 12 and 24.   _____

b)   3 between 18 and 33.   _____

c)   5 between 30 and 55.   _____

d)   4 between 32 and 48.   _____

6. Underline the even numbers and draw a circle around the odd numbers in the list below.

267   436   5148   3790   6985   1974

7. Write down the correct answers as quickly as you can.

a)

$5 \times 9 =$ _____

$8 \times 7 =$ _____

$9 \times 9 =$ _____

$6 \times 7 =$ _____

$0 \times 7 =$ _____

b)

$7 \times 7 =$ _____

$4 \times 9 =$ _____

$7 \times 8 =$ _____

$3 \times 9 =$ _____

$8 \times 8 =$ _____

c)

$5 \times 8 =$ _____

$4 \times 7 =$ _____

$7 \times 9 =$ _____

$2 \times 8 =$ _____

$8 \times 0 =$ _____

d)

$6 \times 9 =$ _____

$4 \times 8 =$ _____

$6 \times 8 =$ _____

$9 \times 8 =$ _____

$5 \times 7 =$ _____

e)

$7 \times 11 =$ _____

$4 \times 12 =$ _____

$3 \times 10 =$ _____

$11 \times 12 =$ _____

f)

$6 \times 12 =$ _____

$9 \times 10 =$ _____

$12 \times 12 =$ _____

$0 \times 11 =$ _____

g)

$11 \times 11 =$ _____

$8 \times 10 =$ _____

$7 \times 12 =$ _____

$12 \times 0 =$ _____

h)

$12 \times 10 =$ _____

$9 \times 11 =$ _____

$8 \times 12 =$ _____

$5 \times 12 =$ _____

Day 10.

1. Complete:

Example:	$4 \times 30 = 4 \times 3$ tens $= 12$ tens $= 120$
Also	$20 \times 40 = 2$ tens $\times 4$ tens $= 8$ hundreds $= 800$.
And	$50 \times 700 = 5$ tens $\times 7$ hundreds $= 35$ thousands $= 35\ 000$

a) $2 \times 10 =$ _____

$2 \times 20 =$ _____

$3 \times 20 =$ _____

b) $3 \times 30 =$ _____

$4 \times 20 =$ _____

$5 \times 20 =$ _____

c) $6 \times 10 =$ _____

$6 \times 30 =$ _____

$7 \times 20 =$ _____

d) $8 \times 40 =$ _____

$7 \times 30 =$ _____

$9 \times 50 =$ _____

e) $10 \times 20 =$ _____

$10 \times 30 =$ _____

$10 \times 60 =$ _____

f) $20 \times 30 =$ _____

$20 \times 40 =$ _____

$20 \times 60 =$ _____

g) $30 \times 30 =$ _____

$30 \times 50 =$ _____

$30 \times 70 =$ _____

h) $60 \times 20 =$ _____

$70 \times 20 =$ _____

$90 \times 30 =$ _____

i) $10 \times 400 =$ _____

$20 \times 600 =$ _____

$40 \times 900 =$ _____

j) $70 \times 200 =$ _____

$60 \times 800 =$ _____

$90 \times 500 =$ _____

k) $40 \times 500 =$ _____

$50 \times 600 =$ _____

$80 \times 500 =$ _____

2.   Multiply by "breaking-down" the 3-digit number.

Example: 7×168

Answer: $7 \times 168 = 7 \times (100 + 60 + 8)$ or $7 \times 8 = 56$

                      $= (7 \times 100) + (7 \times 60) + (7 \times 8)$ and $7 \times 60 = 420$

                      $= 700 + 420 + 56$ and $\underline{7 \times 100 = 700}$

                      $= 1\ 120 + 56$ means $\underline{7 \times 168 = 1176}$

                      $= 1\ 176$

---

a) 4×243 or

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

b) 6×329 or

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

3.   Multiplication of any 2-digit or 3-digit number by a 1-digit number without "breaking-down" the 2-digit or 3-digit number.

Example: 2 extra tens

                      4×46 Step 1: 4×6 units = 24 units = 2T + 4U

                    $= 184$ Step 2: Write down 4 units

                                   Step 3: 4×4 tens = 16 tens and 16 tens + 2 tens = 18 tens

---

a) $6 \times 14 = $ _____ | b) $5 \times 23 = $ _____ | c) $9 \times 61 = $ _____

e) $4 \times 63 = $ _____ | f) $8 \times 53 = $ _____ | g) $3 \times 98 = $ _____

i) $2 \times 324 = $ _____ | j) $4 \times 132 = $ _____ | k) $9 \times 322 = $ _____

4.   Double each of the given numbers.

Example: Double 3 257 = 2 × 3 257 = 6 514

---

a)   Double 563 = _____ = _____

b)   Double 2 734 = _____ = _____

c)   Double 4 386 = _____ = _____

5.   Multiplication of any 3- or 4-digit number by a 1-digit number without breaking
        down the bigger number.

Example: 7 × 2 354   Step 1: 7 × 4   = 28   - write down 8 units.

                = 16 478   Step 2: 7 × 5 + 2 = 37   - write down 7 tens.

                                   Step 3: 7 × 3 + 3 = 24   - write down 4 hundreds

                                   Step 4: 7 × 2 + 2 = 16   - write down 16 thousands

---

a) 2 × 324 = _____ | b) 4 × 132 = _____ | c) 8 × 215 = _____

d) 9 × 322 = _____ | e) 7 × 253 = _____ | f) 6 × 348 = _____

g) 3 × 1 432 = _____ | h) 5 × 2 213 = _____ | i) 7 × 3 142 = _____

Day 11.

1.   Multiplication of any 2-digit or 3-digit number by a multiple of 10.

Example: 30 × 37 = 3 × 10 × 37 = 3 × 370 = 1 110.

---

a) 40 × 28 = 4 × _____ | b) 60 × 54 = _____

= _____ | = _____

= _____ | = _____

c) 70 × 63 = _____ | d) 30 × 214 = _____

= _____ | = _____

= _____ | = _____

e) 50 × 413 = _____ | f) 90 × 326 = _____

= _____ | = _____

= _____ | = _____

2. Multiplication of any 2-digit number by any 2-digit number using the "vertical-column method".

Example:

$$
\begin{array}{r}
47 \\
\times\ \ 28 \\
\hline
376 \\
+\ \ 940 \\
\hline
1316
\end{array}
$$

$\leftarrow 8 \times 47 = 376$

$\leftarrow 20 \times 47 = 10 \times 2 \times 47 = 10 \times 94 = 940$

---

a)
$$
\begin{array}{r}
34 \\
\times\ 16 \\
\hline
\end{array}
$$

b)
$$
\begin{array}{r}
53 \\
\times\ 27 \\
\hline
\end{array}
$$

c)
$$
\begin{array}{r}
49 \\
\times\ 34 \\
\hline
\end{array}
$$

d)
$$
\begin{array}{r}
56 \\
\times\ 42 \\
\hline
\end{array}
$$

3. Use the "vertical-column method" to calculate the answers.

Example: 563×34

Answer:

$$
\begin{array}{r}
563 \\
\times\ \ \ \ 34 \\
\hline
2252 \\
+16890 \\
\hline
19142
\end{array}
$$

$\leftarrow 4 \times 563$

$\leftarrow 30 \times 563$

---

a)
$$
\begin{array}{r}
623 \\
\times\ \ 29 \\
\hline
\end{array}
$$

b)
$$
\begin{array}{r}
804 \\
\times\ \ 67 \\
\hline
\end{array}
$$

c)
$$
\begin{array}{r}
975 \\
\times\ \ 78 \\
\hline
\end{array}
$$

d)
$$
\begin{array}{r}
475 \\
\times\ \ 47 \\
\hline
\end{array}
$$

e)
$$
\begin{array}{r}
382 \\
\times\ \ 83 \\
\hline
\end{array}
$$

f)
$$
\begin{array}{r}
619 \\
\times\ \ 56 \\
\hline
\end{array}
$$

Day 12.

---

1.   Because 12 can be written in product form as 1×12 or 2×6 or 3×4, we say that 12 is a **multiple** of 2, 3, 4, 6, 12 and that 2, 3, 4, 6 and 12 are **factors** of 12.
Also since 2 and 3 are both prime numbers and factors of 12 they are known as the **prime factors** of 12.

---

2.   Multiplication of 3-digit and 4-digit numbers by a 2-digit or 3-digit number using the known factors of one of the numbers.

Example: $236 \times 28 = 236 \times 7 \times 4 = 1\ 652 \times 4 = 6\ 608$

(with small superscript digits "2 4" above 236×7 and "2 2" above $1\ 652$)

---

a) 413×24

= $413 \times 8 \times$ _____

=   _____

=   _____

b) 672×36

= $672 \times$ _____ $\times 4$

=   _____

=   _____

c) 857×56

=   _____

=   _____

=   _____

d) 753×42

=   _____

=   _____

=   _____

e) $2\ 346 \times 96$

=   _____

=   _____

=   _____

f) $1\ 437 \times 132$

=   _____

=   _____

=   _____

3.   Use the "vertical-column method" to calculate the answers.

Examples: 563×34 and $1\ 267 \times 329$

Answers:

```
        5 6 3                          1 2 6 7
      ×    3 4                       ×     3 2 9
        2 2 5 2   ← 4 × 563          1 1 4 0 3   ← 9 × 1 267
      + 1 6 8 9 0 ← 30 × 563         2 5 3 4 0   ← 20 × 1 267
        1 9 1 4 2                    3 8 0 1 0 0 ← 300 × 1 267
                                     4 1 6 8 4 3
```

a)
```
        6 2 3
      ×    2 8
```

b)
```
        9 7 5
      ×    7 8
```

c)
```
        8 4 9
      ×    5 3
```

d)
```
      1 6 7 4
      ×   3 6 1
```

e)
```
      2 3 1 8
      ×   4 7 2
```

f)
```
      3 5 6 7
      ×   8 0 9
```

Day 13.

1. Closed shapes with 3 or more straight sides are named according to their number of sides. Fill in the missing numbers or words in the table.

Figure	Number of sides	Name
a)		
b)	4	
c)		pentagon
d)	4	
e)	7	
f)		
g)		hexagon

2.   Draw a neat straight line to link each of the given figures with its name.
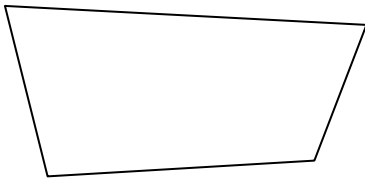
a)   parallelogram
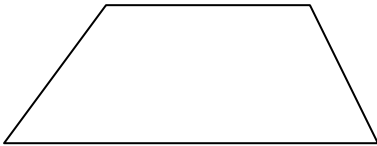
b)   semi-circle circle
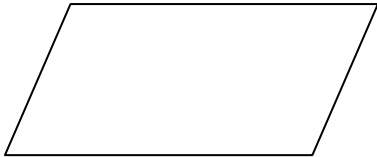
c)   kite
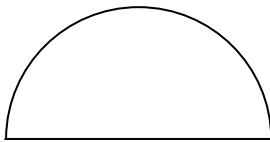
d)   quadrilateral
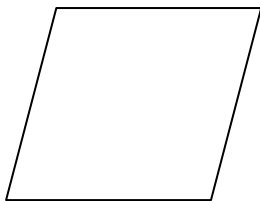
e)   trapezium
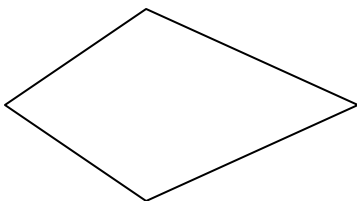
f)   rhombus

3.

a)
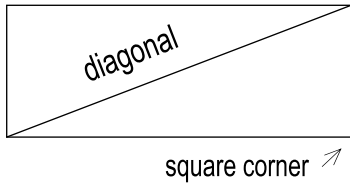
The adjacent rectangle has 4 square corners and the line joining the opposite corners is called the diagonal of the rectangle. A rectangle has 2 diagonals. We say that the square corners form right angles. Another name for a corner is a **vertex** and the plural for vertex is **vertices**.

b)
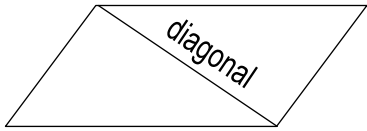
The adjacent parallelogram has no square corners but has 2 diagonals. Two of the vertex angles of a parallelogram are **smaller** than **right angles** and the other two vertex angles are **greater** than **right angles**.

4.
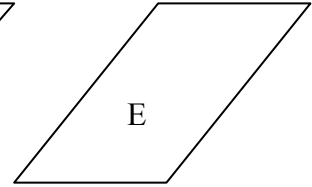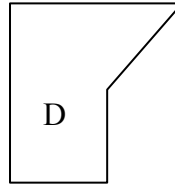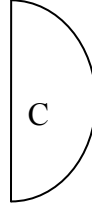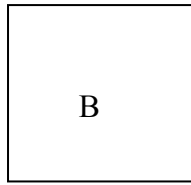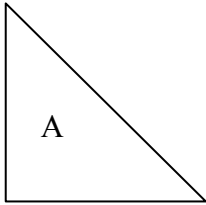
Complete:

a) Figure **A** has _____ square corner(s) b) Figure **B** has _____ square corners

c) Figure **C** has _____ square corners d) Figure **D** has _____ square corners

e) Figure **E** has _____ square corners

5.
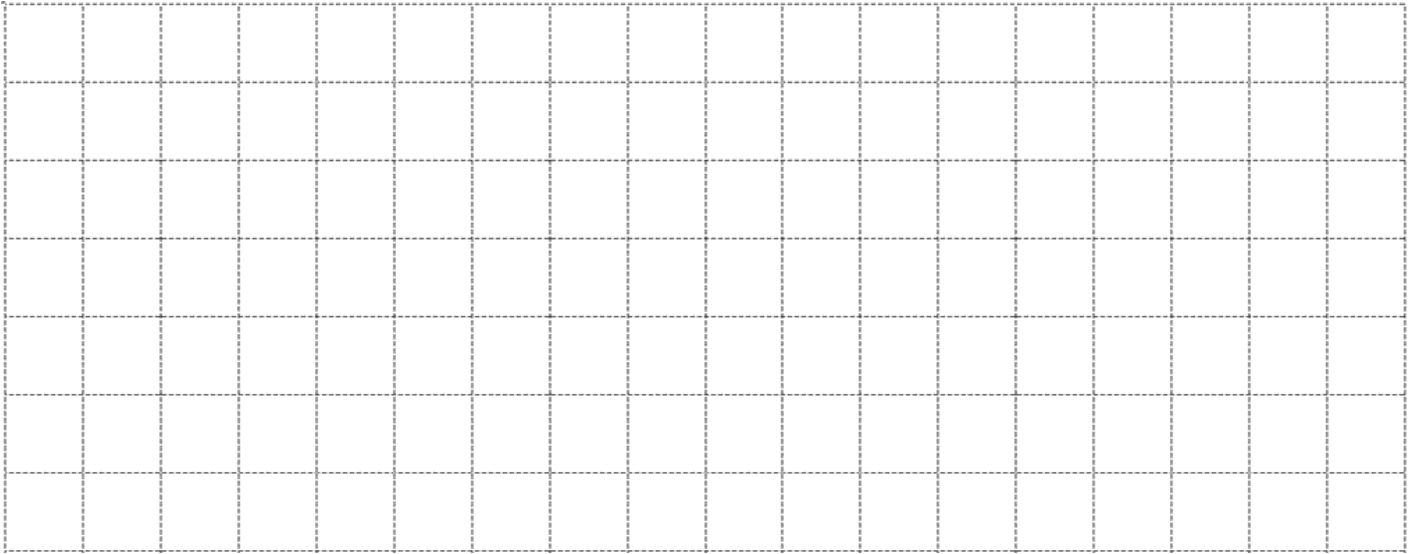
Use a sharp pencil and a ruler to draw the following figures on the above grid:

a)   A rectangle which is 5 units long and 3 units wide. Then draw one diagonal.

       Are the triangles formed the same size or not? _____

b)   A square with a side of 4 units. Then draw two diagonals.

       What do you notice about the new shapes formed? _____

c)   A triangle with one vertex angle that is greater than a right angle.

6.   Put a "✓" after the last word in each sentence if it is correct and a "✗" if it is wrong.

a)   A square and a rectangle each have 4 equal straight sides.

b)   A square and a rectangle each have 4 square corners.

c)   A square only has one diagonal.

d)   A parallelogram has 4 square corners.

e)   Two of the corners of a parallelogram are smaller than a right angle.

Day 14.

1.
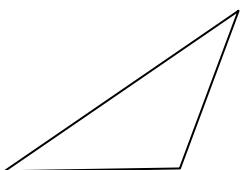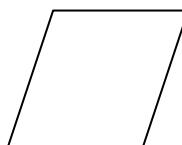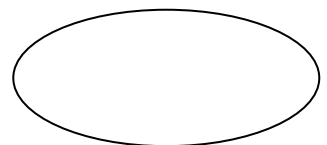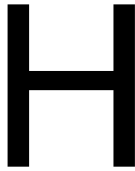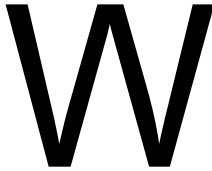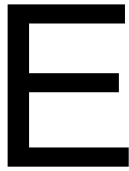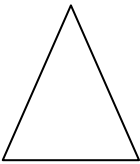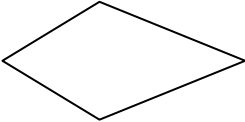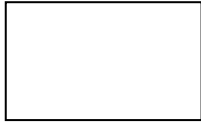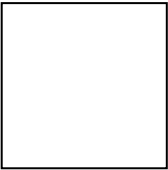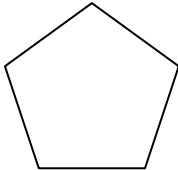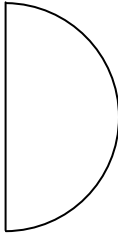
Which of the above diagrams are symmetrical in shape? _____

2.   Draw the line(s) of symmetry in each of the following capital letters.

a)   b)   c)   d)

B   H   W   E
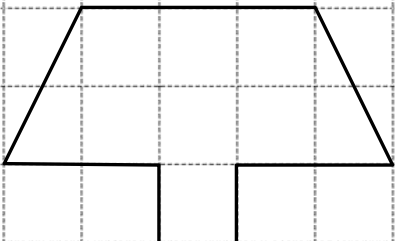
3.   Use a ruler to draw the line(s) of symmetry in each of the given figures.

a)   b)   c)
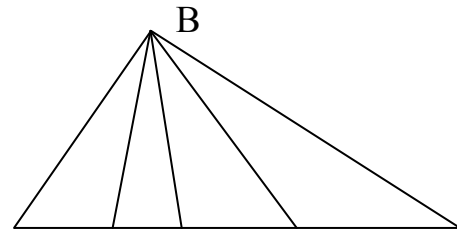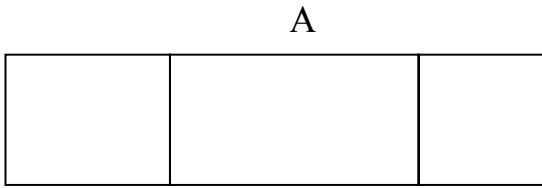
d)   e)   f)

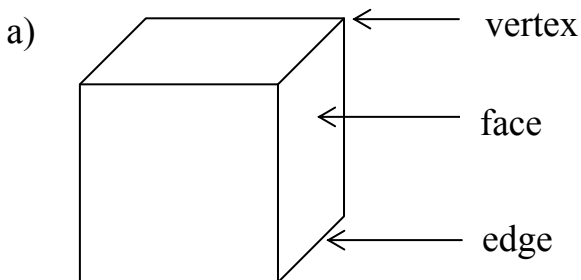4.   Draw the other half of each figure to make a symmetrical figure.

a)   b)

5.   A challenging question - for fun.

A

B

Complete: In diagram A there are _____ rectangles and

in diagram B there are _____ triangles.

Day 15.

1.   **Study**:

a)

i)   The 6 flat figures used to build the cube are all squares and are called the **faces** of the cube.
ii)   The line segments where the faces meet are called **edges**.
iii)   The points where the edges meet are called **vertices**.

b)   3-D objects which have two straight-sided faces that are exactly the same and opposite each other are called **prisms**.

c)   These **identical faces** are called the **bases** of the prism.

d)   The 2 bases are joined by **rectangles** or **parallelograms**.

e)   A 3-D solid which has only **one base** is either a **cone** or a **pyramid**.

f)   A **cone** has a **circular base** whereas the **base of a pyramid** may be a **triangle, square, rectangle** etc.

g)   A pyramid has a number of triangular faces meeting in one vertex.

2.
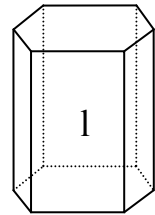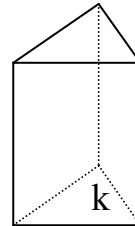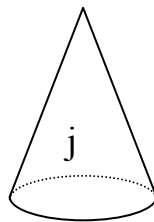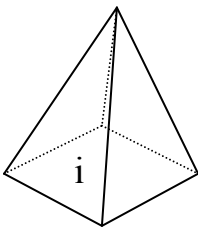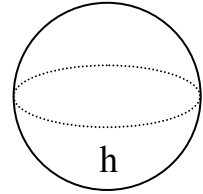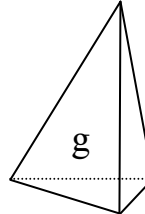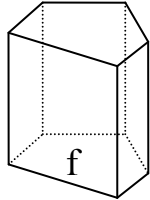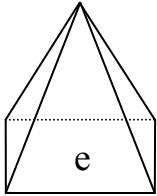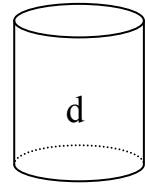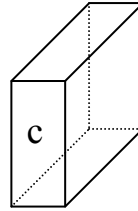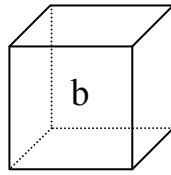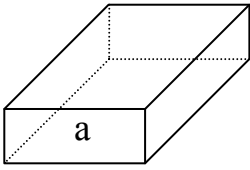
The above 12 figures are all 3-D shapes.

Complete:

a)   The 3-D shape marked (d) is called a _____

b)   The 3-D shape marked (h) is called a _____

c)   The 3-D shape marked (i) is called a _____

d)   The 3-D shape marked (j) is called a _____

e)   The 3-D shape marked (k) is called a _____

3.   Look at the figures in question 2 and then answer each of the questions.

a)   Which figures have the same shape as figure (c)? _____

b)   In which way are figures (d) and (j) alike?

       _____

c)   In which way is figure (g) different from figure (i)?

       _____

d)   In which way are figures (e), (g) and (i) the same?

       _____

4.   Complete:

Name of prism	Number of vertices	Number of edges	Number of faces	Shape of faces
a) A rectangular prism				
b) A triangular prism				
c) A pentagonal prism				
d) A hexagonal prism				

5.   Complete for

	a triangular pyramid	a square-based pyramid	a heptagonal pyramid
a) Shape of base			
b) Number of faces			
c) Number of vertices			
d) Number of edges			
e) Shape of lateral faces			