50 Point Challenge - Maths

1) Write out the 2x, 4x and 8x tables in your Maths Homework Book and complete the test at school. Can you spot any patterns? 5 Points	2) Write out the 3x, 6x and 9x tables in your Maths Homework Book and complete the test at school. Can you pot any patterns? 5 Points	3) Write out the 8x, 9x and 10x tables in your Maths Homework Book and complete the test at school. 5 Points	4) Complete the Place Value and Ordering Numbers Activity sheets. 5 Points	5) Complete the Number to Words and Words to Number Activity sheets. 5 Points
6) Complete the Counting forwards and backwards Word Problem sheet. 5 Points	7) Complete the Addition Number Pyramid Activity sheet 5 Points	8) Complete the Fraction Grid Activity sheets. 5 Points	9) Complete the Equivalent Fraction Activity sheets. 5 Points	10) Complete the ½ of amounts activity sheets 5 Points
11) Complete the Rounding to the nearest 10,000 Activity sheets. 10 Points	12) Complete the Roman Numeral Activity sheets. 10 Points	13) Complete the Hydra Equivalent Fraction colouring in sheet. 10 Points	14) Complete the Multiplication grids Activity sheet. 10 Points	15) Complete the Rounding to the nearest 10,100, 1000 Activity sheets. 10 Points
16) Complete the Metric units - Lengths Activity sheets. 10 Points	17) Complete the Multiplication and Division Activity sheets. 10 Points	18) Complete the Parrot Decimal Place Value colouring in sheet. 10 Points	19) Complete the Solids – 3D shapes Activity sheets 10 Points	20) Complete the Reflections Activity sheets 10 Points

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 7

Number Pyramids.

To find the next number, **add** the two bricks below it.
Copy each pyramid and fill in the missing numbers.

1).

15	22	19

2).

31	14	27

3).

11	26	18

4).

35	19	18

5).

38	17	29

6).

32	26	47

7).

42	23	28

8).

37	25	36

9).

44	38	27

10).

26	29	53

11).

63	34	57

12).

73	25	68

13).

16	23	14	19

14).

22	15	24	20

15).

17	26	32	16

16).

37	21	43	14

17).

26	48	15	33

18).

52	13	26	46

19).

43	36	45	28

20).

24	62	38	54

21).

67	49	56	73

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 16

Metric Units -Lengths.

A). Change the following to millimetres (mm).

1 cm = 10 mm

1).	3 cm	9).	11 cm	17).	1 cm 6 mm	25).	8 cm 1 mm	33).	13 cm 4 mm
2).	4 cm	10).	14 cm	18).	1 cm 3 mm	26).	9 cm 5 mm	34).	12 cm 8 mm
3).	1 cm	11).	12 cm	19).	1 cm 9 mm	27).	7 cm 3 mm	35).	16 cm 3 mm
4).	6 cm	12).	17 cm	20).	2 cm 1 mm	28).	6 cm 8 mm	36).	23 cm 7 mm
5).	5 cm	13).	20 cm	21).	2 cm 7 mm	29).	4 cm 4 mm	37).	19 cm 6 mm
6).	8 cm	14).	19 cm	22).	3 cm 2 mm	30).	9 cm 6 mm	38).	29 cm 2 mm
7).	9 cm	15).	25 cm	23).	4 cm 9 mm	31).	8 cm 9 mm	39).	31 cm 1 mm
8).	2 cm	16).	24 cm	24).	7 cm 6 mm	32).	6 cm 7 mm	40).	20 cm 2 mm

B). Change the following to centimetres (cm) and millimetres (mm) .

10 mm = 1 cm

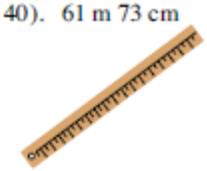
1).	39 mm	9).	70 mm	17).	39 mm	25).	100 mm	33).	190 mm
2).	12 mm	10).	98 mm	18).	26 mm	26).	108 mm	34).	211 mm
3).	27 mm	11).	87 mm	19).	18 mm	27).	116 mm	35).	243 mm
4).	50 mm	12).	25 mm	20).	31 mm	28).	103 mm	36).	270 mm
5).	42 mm	13).	46 mm	21).	21 mm	29).	125 mm	37).	315 mm
6).	83 mm	14).	90 mm	22).	84 mm	30).	143 mm	38).	426 mm
7).	61 mm	15).	37 mm	23).	76 mm	31).	180 mm	39).	904 mm
8).	92 mm	16).	71 mm	24).	99 mm	32).	148 mm	40).	671 mm

C). Change the following to centimetres (cm).

1 m = 100 cm

1).	4 m	9).	10 m	17).	1 m 42 cm	25).	3 m 9 cm	33).	10 m 16 cm
2).	3 m	10).	14 m	18).	1 m 7 cm	26).	3 m 90 cm	34).	13 m 67 cm
3).	2 m	11).	19 m	19).	1 m 70 cm	27).	6 m 31 cm	35).	18 m 4 cm
4).	1 m	12).	15 m	20).	1 m 73 cm	28).	8 m 28 cm	36).	22 m 30 cm
5).	6 m	13).	21 m	21).	1 m 50 cm	29).	7 m 5 cm	37).	28 m 19 cm
6).	8 m	14).	27 m	22).	2 m 86 cm	30).	9 m 65 cm	38).	30 m 6 cm
7).	9 m	15).	35 m	23).	1 m 72 cm	31).	4 m 17 cm	39).	30 m 60 cm
8).	7 m	16).	42 m	24).	2 m 98 cm	32).	5 m 89 cm	40).	61 m 73 cm

D). Change the following to metres (m) and centimetres (cm) .



100 cm = 1 m

1).	126 cm	9).	247 cm	17).	498 cm	25).	1031 cm	33).	2504 cm
2).	149 cm	10).	224 cm	18).	683 cm	26).	1080 cm	34).	3007 cm
3).	100 cm	11).	341 cm	19).	823 cm	27).	1084 cm	35).	4734 cm
4).	138 cm	12).	208 cm	20).	398 cm	28).	1145 cm	36).	6280 cm
5).	108 cm	13).	390 cm	21).	806 cm	29).	1250 cm	37).	9401 cm
6).	180 cm	14).	436 cm	22).	560 cm	30).	1328 cm	38).	3792 cm
7).	165 cm	15).	732 cm	23).	703 cm	31).	1742 cm	39).	9060 cm
8).	118 cm	16).	562 cm	24).	730 cm	32).	1845 cm	40).	8342 cm

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

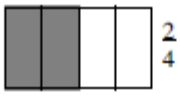
50 Point Challenge - Maths

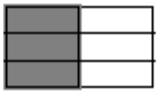
Challenge Number: 9

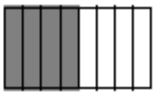
Equivalent Fractions.

Equivalent fractions are fractions that are the same amount, but use different numbers.
Here are 4 equivalent fractions:


$\frac{1}{2}$


$\frac{2}{4}$


$\frac{3}{6}$


$\frac{4}{8}$

We can see that $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \ldots\ldots$ Can you spot a pattern ?

A. Copy and continue these equivalent fraction patterns.

1). $\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = \_\_ = \_\_ = \_\_$

2). $\frac{1}{6} = \frac{2}{12} = \frac{3}{18} = \frac{4}{24} = \_\_ = \_\_ = \_\_$

3). $\frac{1}{10} = \frac{2}{20} = \frac{3}{30} = \frac{4}{40} = \_\_ = \_\_ = \_\_$

4). $\frac{1}{12} = \frac{2}{24} = \frac{3}{36} = \frac{4}{48} = \_\_ = \_\_ = \_\_$

5). $\frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{8}{20} = \_\_ = \_\_ = \_\_$

6). $\frac{2}{9} = \frac{4}{18} = \frac{6}{27} = \frac{8}{36} = \_\_ = \_\_ = \_\_$

7). $\frac{3}{7} = \frac{6}{14} = \frac{9}{21} = \frac{12}{28} = \_\_ = \_\_ = \_\_$

8). $\frac{5}{13} = \frac{10}{26} = \frac{15}{39} = \frac{20}{52} = \_\_ = \_\_ = \_\_$

B). By drawing a diagram, or using any number patterns you can see, find **5** equivalent fractions to :

1). $\frac{1}{3}$ 2). $\frac{1}{9}$ 3). $\frac{1}{7}$ 4). $\frac{1}{5}$ 5). $\frac{2}{3}$

6). $\frac{3}{4}$ 7). $\frac{2}{11}$ 8). $\frac{3}{14}$ 9). $\frac{5}{9}$ 10). $\frac{14}{15}$

C). Copy the question, then fill in the missing number for these equivalent fractions.

1). $\frac{2}{3} = \frac{\_}{12}$ 2). $\frac{4}{5} = \frac{\_}{30}$ 3). $\frac{1}{3} = \frac{\_}{18}$ 4). $\frac{2}{5} = \frac{\_}{45}$ 5). $\frac{3}{7} = \frac{\_}{35}$

6). $\frac{4}{7} = \frac{\_}{21}$ 7). $\frac{3}{5} = \frac{\_}{50}$ 8). $\frac{5}{6} = \frac{\_}{24}$ 9). $\frac{5}{6} = \frac{\_}{42}$ 10). $\frac{9}{12} = \frac{\_}{48}$

11). $\frac{6}{7} = \frac{\_}{84}$ 12). $\frac{4}{9} = \frac{\_}{81}$ 13). $\frac{5}{12} = \frac{\_}{72}$ 14). $\frac{4}{5} = \frac{\_}{60}$ 15). $\frac{6}{11} = \frac{\_\_}{110}$

16). $\frac{5}{7} = \frac{\_\_}{63}$ 17). $\frac{4}{5} = \frac{\_\_}{40}$ 18). $\frac{1}{2} = \frac{\_\_}{26}$ 19). $\frac{3}{4} = \frac{\_\_}{52}$ 20). $\frac{4}{7} = \frac{\_\_}{84}$

21). $\frac{6}{13} = \frac{\_\_}{143}$ 22). $\frac{12}{17} = \frac{\_\_}{34}$ 23). $\frac{24}{25} = \frac{\_\_}{100}$ 24). $\frac{13}{50} = \frac{\_\_}{300}$ 25). $\frac{9}{20} = \frac{\_\_}{140}$

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

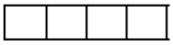
Challenge Number: 10 Page 1

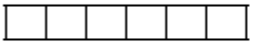
1/2 of Amounts

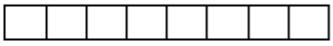
SECTION A

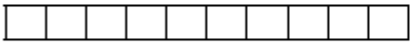
a) Copy each shape onto squared paper.
b) Colour half of each shape.
c) Write a sentence for each shape (some of them have been started for you below).

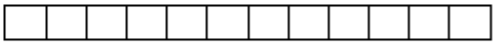
1) 

2) 

3) 

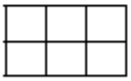
4) 

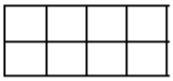
5) 

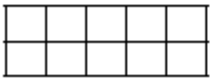
6) 

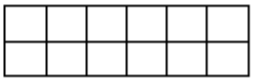
7) 

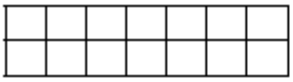
8) 

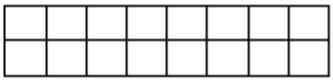
9) 

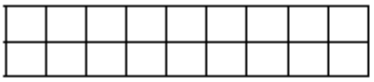
10) 

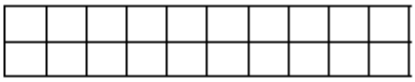
11) 

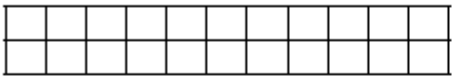
12) 

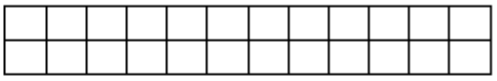
13) 

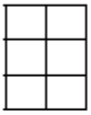
14) 

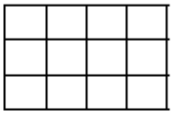
15) 

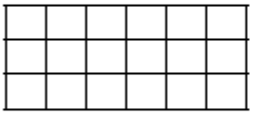
16) 

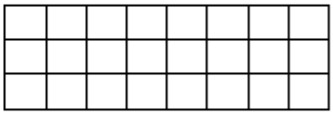
17) 

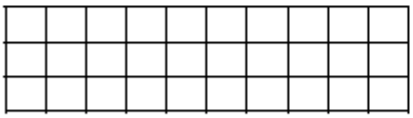
18) 

19) 

20) 

21) 

22) 

23) 

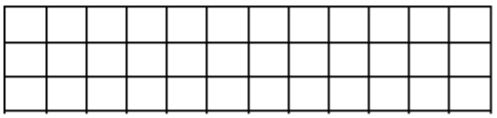
24) 

Diagram 1: A half of 2 squares is 1 square.
Diagram 2: A half of 4 squares is _ squares.
Diagram 3: A half of 6 squares is _ squares.
Diagram 4: A half of _ squares is _ squares.
Diagram 5: A half of _ .....

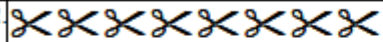
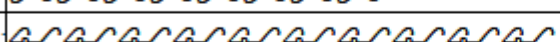
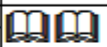
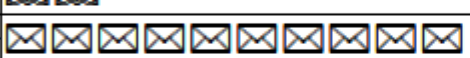
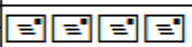
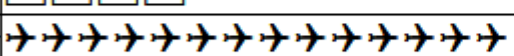
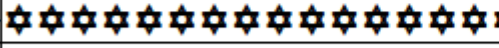
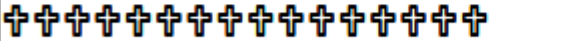
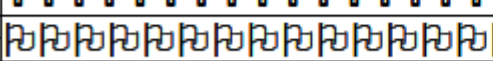
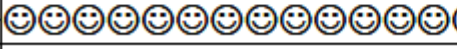
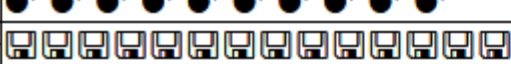
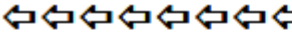
By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 10 Page 2

SECTION B

Copy and complete the following table. The first one has been done for you.

1.		$^1/_2$ of 6 pencils	=	3 pencils
2.		$^1/_2$ of 8 scissors	=	___ scissors
3.		$^1/_2$ of ___ glasses	=	___ glasses
4.		$^1/_2$ of ___ books	=	
5.		$^1/_2$ of ___ letters	=	
6.		$^1/_2$ of ___ phones	=	
7.		$^1/_2$ of ___ letters	=	
8.		$^1/_2$ of ___ planes	=	
9.		$^1/_2$ of ___ stars	=	
10.		$^1/_2$ of ___ crosses	=	
11.		$^1/_2$ of ___ flags	=	
12.		$^1/_2$ of ___ faces	=	
13.		$^1/_2$ of ___ PCs	=	
14.		$^1/_2$ of ___ bombs	=	
15.		$^1/_2$ of ___ discs	=	
16.		$^1/_2$ of ___ arrows	=	
17.		$^1/_2$ of ___ triangles	=	
18.		$^1/_2$ of ___ mice	=	
19.		$^1/_2$ of ___ post boxes	=	
20.		$^1/_2$ of ___ squares	=	

SECTION C

Copy and complete:

1. $^1/_2$ of 4 =	2. $^1/_2$ of 6 =	3. $^1/_2$ of 20 =	4. $^1/_2$ of 10 =	5. $^1/_2$ of 16 =
6. $^1/_2$ of 18 =	7. $^1/_2$ of 14 =	8. $^1/_2$ of 2 =	9. $^1/_2$ of 8 =	10. $^1/_2$ of 12 =
11. $^1/_2$ of 40 =	12. $^1/_2$ of 60 =	13. $^1/_2$ of 100 =	14. $^1/_2$ of 80 =	15. $^1/_2$ of 200 =
16. $^1/_2$ of 30 =	17. $^1/_2$ of 70 =	18. $^1/_2$ of 50 =	19. $^1/_2$ of 90 =	20. $^1/_2$ of 300 =
21. $^1/_2$ of 22 =	22. $^1/_2$ of 28 =	23. $^1/_2$ of 24 =	24. $^1/_2$ of 42 =	25. $^1/_2$ of 48 =
26. $^1/_2$ of 26 =	27. $^1/_2$ of 46 =	28. $^1/_2$ of 62 =	29. $^1/_2$ of 68 =	30. $^1/_2$ of 64 =
31. $^1/_2$ of 82 =	32. $^1/_2$ of 88 =	33. $^1/_2$ of 86 =	34. $^1/_2$ of 66 =	35. $^1/_2$ of 32 =
36. $^1/_2$ of 38 =	37. $^1/_2$ of 34 =	38. $^1/_2$ of 52 =	39. $^1/_2$ of 58 =	40. $^1/_2$ of 36 =

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 14 Page 1

Multiplication Grids.

Fill in all the spaces in these **multiplication** grids.

1).

X	2	6	4	7
3				
5		30		
2				
4				

2).

X	5	2	4	3
6				
3				
2				
8				

3).

X	3	7	2	4
5				
2				
10				
3				

4).

X	3		4	10
5		10		
6				
3				
2				

5).

X	5	4		2
5				
4			40	
7				
2				

6).

X		7	6	5
4				
5	15			
3				
10				

7).

X	6	10		5
4				
5				
2			6	
				15

8).

X	4		3	10
7				
			12	
5		25		
9				

9).

X	5	2	4	
3				30
8				
5				
				60

10).

X		10	3	
4				16
				28
9				
5	10			

11).

X	7		8	6
10		40		
3				
				12
	35			

12).

X	3			5
7		14		
9				
		8	16	
8				

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 14 Page 2

Remember, fill in all the spaces in the multiplication grids.
These are harder!

13).

X	10		3	
		15		
8				32
9		45		
				24

14).

X		8		7
10				
3			12	
	12		8	
				28

15).

X		2		3
6	24			
	20		25	
9				
			40	

16).

X		3		
8	40			32
6			60	
			40	
		27		

17).

X		2		
		8		
3				24
10			90	
	14			16

18).

X		4	6	
	24			27
				45
2				
	32	16		

19).

X		10		
		70	28	
5	25			15
	45			
	40			

20).

X				
		70		28
6		60		
8	24			
	27		45	

21).

X				3
8			40	
	90	18		
			20	
		12		18

22).

X				
		27	21	
4	32		28	
		18		
	40			10

23).

X	4			
	28			70
		18		60
	32		16	
			18	

24).

X				7
	36	16		
	45		25	
			15	
		40		70

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 15

Rounding to the Nearest 1, 10, 100 and 1000.

9 **10** 11 12 13 14 15 16 17 18 19 **20** 21 22 23 24 25 26 27 28 29 **30** 31

The number line above may help you solve the first ten questions of this section.

A). Round the following numbers to the **nearest 10**.

1). 13	2). 23	3). 18	4). 26	5). 24
6). 17	7). 22	8). 14	9). 25	10). 15
11). 33	12). 8	13). 49	14). 62	15). 81
16). 35	17). 68	18). 37	19). 76	20). 85
21). 98	22). 117	23). 95	24). 103	25). 109
26). 134	27). 152	28). 121	29). 177	30). 234
31). 192	32). 206	33). 196	34). 295	35). 404
36). 372	37). 564	38). 588	39). 806	40). 998
41). 1243	42). 5258	43). 3697	44). 7265	45). 8395
46). 37546	47). 52497	48). 69995	49). 49992	50). 999995

90 **100** 110 120 130 140 150 160 170 180 190 **200** 210 220 230 240 250 260 270 280 290 **300** 310

The number line above may help you solve the first ten questions of this section.

B). Round the following numbers to the **nearest 100**.

1). 140	2). 260	3). 180	4). 94	5). 246
6). 150	7). 263	8). 149	9). 252	10). 309
11). 345	12). 390	13). 79	14). 628	15). 819
16). 352	17). 615	18). 361	19). 750	20). 857
21). 985	22). 1243	23). 2145	24). 1072	25). 3920
26). 1050	27). 2152	28). 1321	29). 5779	30). 2350
31). 6929	32). 7061	33). 4626	34). 5680	35). 9094
36). 8728	37). 7964	38). 8588	39). 8958	40). 9978
41). 12425	42). 15278	43). 23795	44). 72650	45). 83950
46). 472465	47). 521970	48). 309950	49). 499926	50). 999961

1900 **2000** 2100 2200 2300 2400 2500 2600 2700 2800 2900 **3000** 3100 3200 3300 3400 3500 3600 3700 3800 3900 **4000** 4100

The number line above may help you solve the first ten questions of this section.

C). Round the following numbers to the **nearest 1000**.

1). 2300	2). 2900	3). 3400	4). 3637	5). 2396
6). 1978	7). 3921	8). 2500	9). 3601	10). 4109
11). 4368	12). 1764	13). 4904	14). 6194	15). 8500
16). 6500	17). 6876	18). 9437	19). 7650	20). 9543
21). 9500	22). 10351	23). 11726	24). 10672	25). 16421
26). 13483	27). 15500	28). 22167	29). 30782	30). 23462
31). 49268	32). 29683	33). 69679	34). 59500	35). 40499
36). 80836	37). 96398	38). 99500	39). 95907	40). 99821
41). 123436	42). 252500	43). 364971	44). 726258	45). 839905
46). 309546	47). 528497	48). 699500	49). 499499	50). 999501

D). Round the following numbers to the nearest a). 10 b). 100 c). 1000

1). 2643	2). 4472	3). 1658	4). 3261	5). 6524
6). 8175	7). 7229	8). 9649	9). 8925	10). 9095
11). 12604	12). 14937	13). 24805	14). 31658	15). 29743
16). 35498	17). 68555	18). 37525	19). 76358	20). 85042
21). 98625	22). 114782	23). 34507	24). 103858	25). 99694

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 17 Page 1

Multiplication and Division Problems.

1). Mr. Smith puts all the pupils in his class in 4 rows. In each row there are 7 pupils. How many pupils are in Mr. Smith's class ?

2). A milk crate will hold 24 bottles of milk. There are 4 rows of bottles in a milk crate. How many bottles are in each row ?

3). Jenny buys 7 pencils at the local shop. Each pencil costs 9p. How much does she spend ?

4). Hamish sells tulips in bunches of 8. He has 72 tulips. How many bunches can he make ?

5). Jenny, Bob and Carol win £36 between them on the pools. How much do they each get?

6). In the new cloakroom there are 9 rows of pegs. Each row has 11 pegs in it. How many pegs are there all together ?

7). It is 56 days until Ben's birthday. How many weeks away is it ?

8). Gemma is playing darts and scores treble 12. How many points is that ?

9). Fiona buys sherbet straws in the newsagents. They cost 4p each and she spends 32p. How many straws has she bought ?

10). Calculators cost £7 each. Mr. Tube the science teacher orders 12 for his class. How much will they cost all together ?

11). Richard buys 54 Gob Stoppers. They are shared out between 6 of them. How many Gob Stoppers do they each get ?

12). Hillary plants carrots out neatly in 9 rows. In each row are 6 carrots. How many carrots has she planted out ?

13). Javid sells tickets for the school play at £6 each. He sells 4 on Monday, 9 on Tuesday, 6 on Wednesday, 5 on Thursday and 11 on Friday.
   a). Work out for each day of the week how much money he takes.
   b). Calculate the total amount of money he takes for the whole week.

14). Jenny works out that her little baby brother, Herman, is 60 **months** old. How many **years** old is Herman ?

15). Fiona gets paid £4 a night for doing a paper round. She works a full week (7 days). How much does she earn a week ?

16). There are 9 identical books placed next to each other on a shelf. Each book is 4 cm wide. What is the total width of **all** of the books ?

17). Six friends collect 72 conkers in the woods behind their homes. They share them out equally. How many conkers do they each get ?

18). If a dog lives one year it is said to be the same as a human living 7 years. If a dog is 8 years old, how many human years is it said to be ?

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 17 Page 2

Harder Questions.

1). Mr. Bob lines up all the pupils in his Year in 4 rows in the playground. Each row has 72 pupils in it. How many pupils are in Mr. Bob's Year ?

2). Jenny buys 24 pencils at the local shop. Each pencil costs 8p. How much does she spend ?

3). Angus sells roses in bunches of 6. He has 144 roses. How many bunches can he make ?

4). Jenny, Bob and Carol win £771 between them on the lottery. How much do they each get?

5). In the new cloakroom there are 4 rows of pegs. Each row has 37 pegs in it. How many pegs are there all together ?

6). It is 161 days until Ben' s birthday. How many weeks away is it ?

7). Gemma is playing darts and scores treble 17. How many points is that ?

8). Wajid buys sherbet straws in the newsagents. They cost 4p each and he spends £1.12. How many straws has he bought ?

9). Calculators cost £6 each. Mr. Sum the maths teacher orders 83 for his new Year 7. How much will they cost all together ?

10). Julian buys 301 Gob Stoppers. They are shared out between 6 friends and himself. How many Gob Stoppers do they each get ?

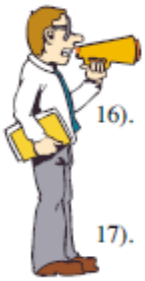
11). Henry plants lettuce out neatly in 5 rows. In each row are 27 lettuce. How many lettuce has he planted out ?

12). Fiona gets paid £5 a night for doing a paper round. She works every day in May (31 days). How much does she earn in May ?

13). In a bookcase there are 8 shelves. Each shelf can hold 45 books. How many books can the bookcase hold ?

14). Nine friends collect 522 conkers in the woods behind their homes. They share them out equally. How many conkers do they each get ?

15). Benny sells tickets for a concert at £3 each. He sells 14 on Monday, 29 on Tuesday, 16 on Wednesday, 25 on Thursday and 31 on Friday.
   a). Work out for each day of the week how much money he takes.
   b). Calculate the total amount of money he takes for the whole week.



16). a). Jean works out that her mum, Chloe is 408 **months** old. How many **years** old is she ?
   b). She then finds out that her dad Jack is 480 **months** old. How many **years** old is he ?
   c). Jean is 15 **years** old exactly. How many **months** old is she ?

17). Eleven friends win £979 between them on the pools. How much do they each get?

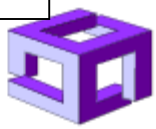
18). In 38 weeks Marie is allowed to leave school. How many days is it until Marie can leave ?

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 19 Page 1

Solids

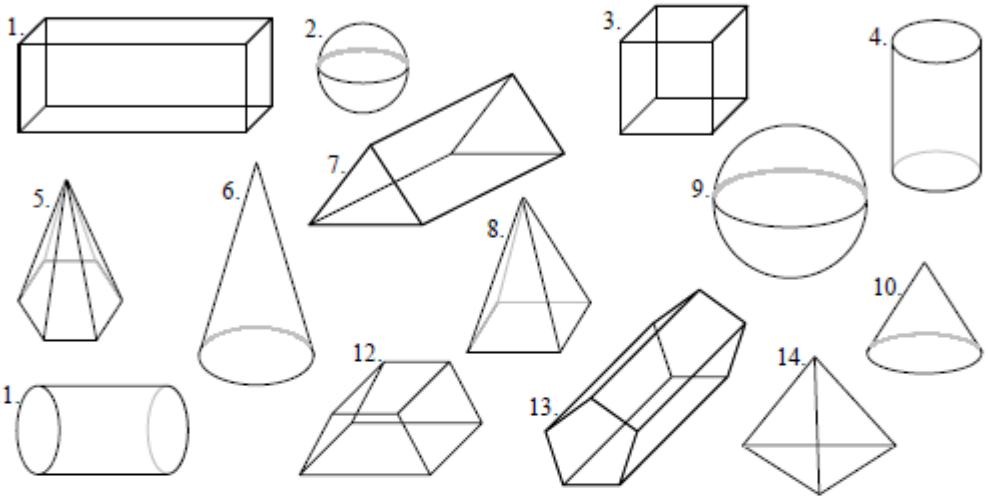


SECTION A

Copy and complete the table using the names and diagrams below:

Cube	Cuboid	Pyramid	Prism	Sphere	Cylinder	Cone

Solid	Solid name
1	
2	

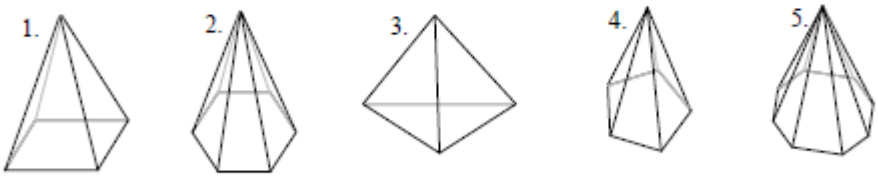


SECTION B

Pyramids can be given extra names such as:

Triangular-based Pyramid, Square-based Pyramid, Hexagonal-based Pyramid, etc….

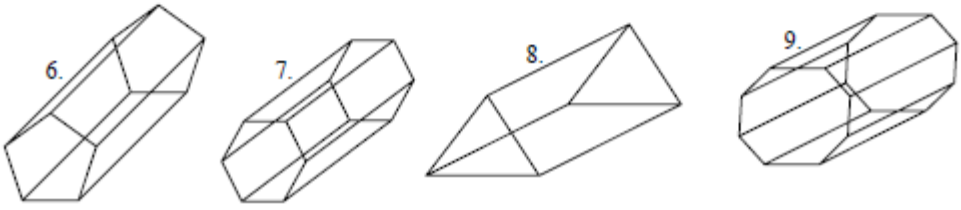
What extra names can you give to the following pyramids?



Prisms can be given extra names such as:

Triangular Prisms, Pentagonal Prisms, etc…

What extra names can you give to the following prisms?



By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 19 Page 2

SECTION C

Copy and complete the table below:

	Solid Name	Number of Corners or **Vertices**	Number of Straight **Edges**	Number of Flat **Faces**
1.	Cube			
2.	Cuboid			
3.	Triangular-based Pyramid			
4.	Square-based Pyramid			
5.	Pentagonal-based Pyramid			
6.	Hexagonal-based Pyramid			
7.	Octagonal-based Pyramid			
8.	Triangular Prism			
9.	Pentagonal Prism			
10.	Hexagonal Prism			
11.	Octagonal Prism			
12.	Cylinder			
13.	Cone			
14.	Sphere			

SECTION D

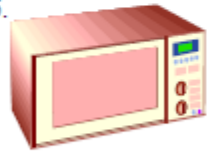
Use a sensible solid name to describe each of the everyday items shown below:

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

9. 

10. 

SECTION E

1. Look in newspapers, magazines and catalogues to find at least 10 pictures that can be described as being one of the mathematical names given to solids.
2. Stick the pictures into your book and label them with the correct mathematical name.

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

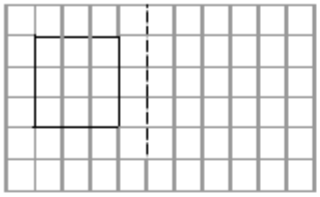
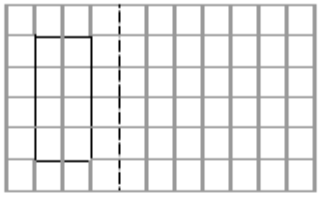
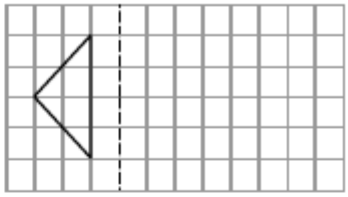
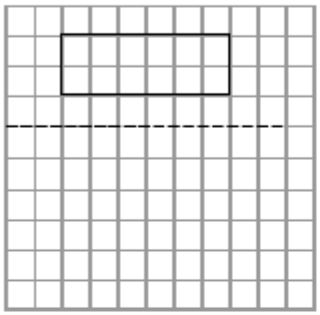
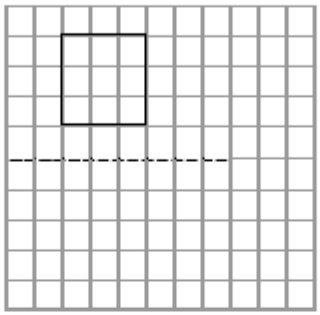
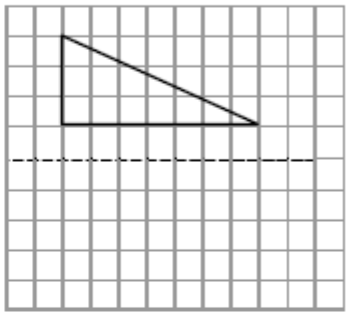
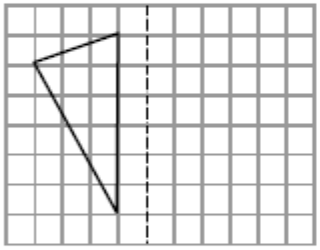
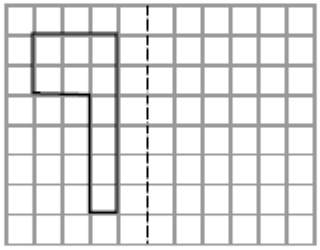
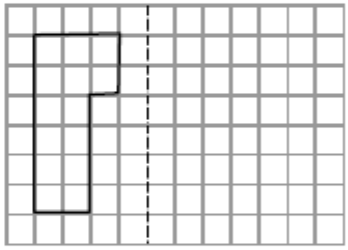
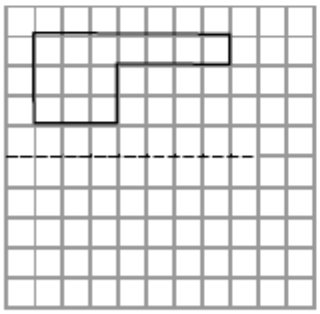
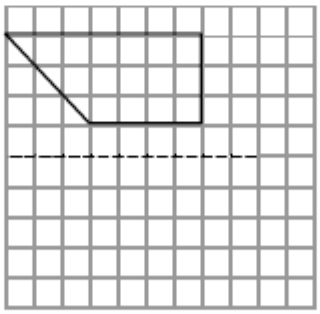
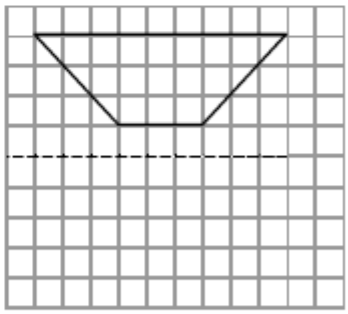
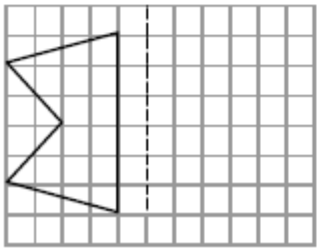
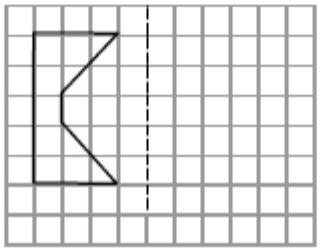
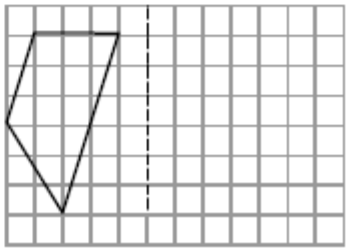
50 Point Challenge - Maths

Challenge Number: 20 Page 1

Reflection

SECTION A

Reflect each of the following shapes in the dotted lines shown.

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

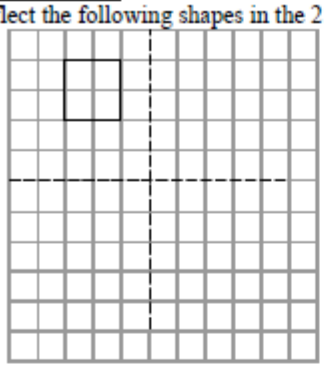
By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

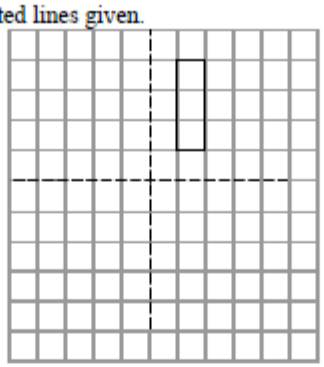
50 Point Challenge - Maths

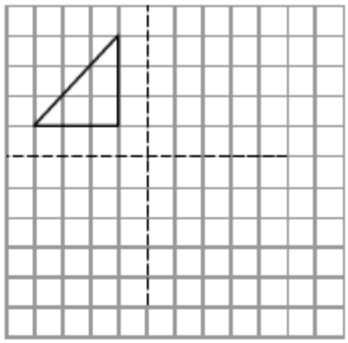
Challenge Number: 20 Page 2

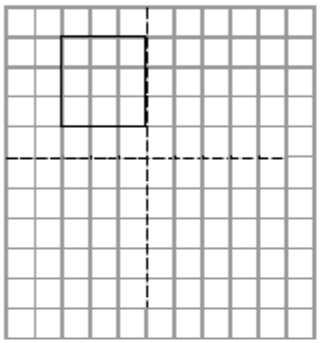
SECTION B

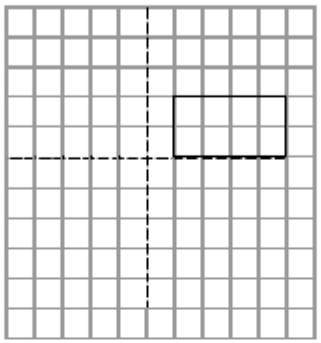
Reflect the following shapes in the 2 dotted lines given.

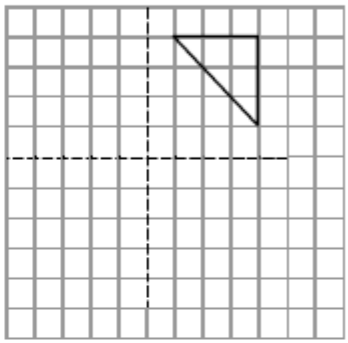
1. 

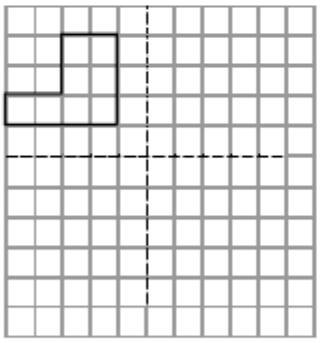
2. 

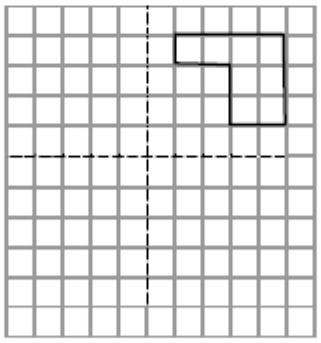
3. 

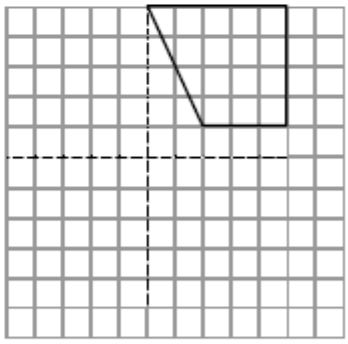
4. 

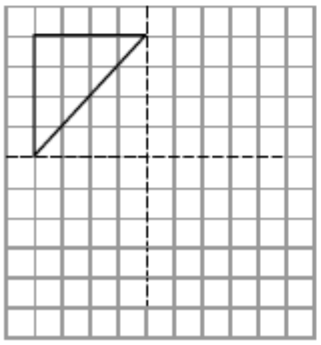
5. 

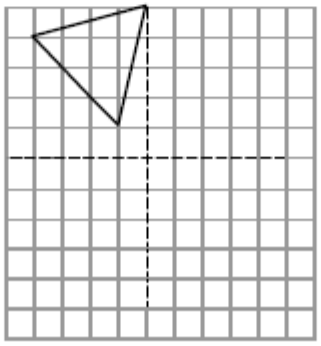
6. 

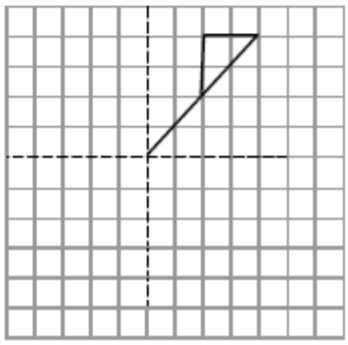
7. 

8. 

9. 

10. 

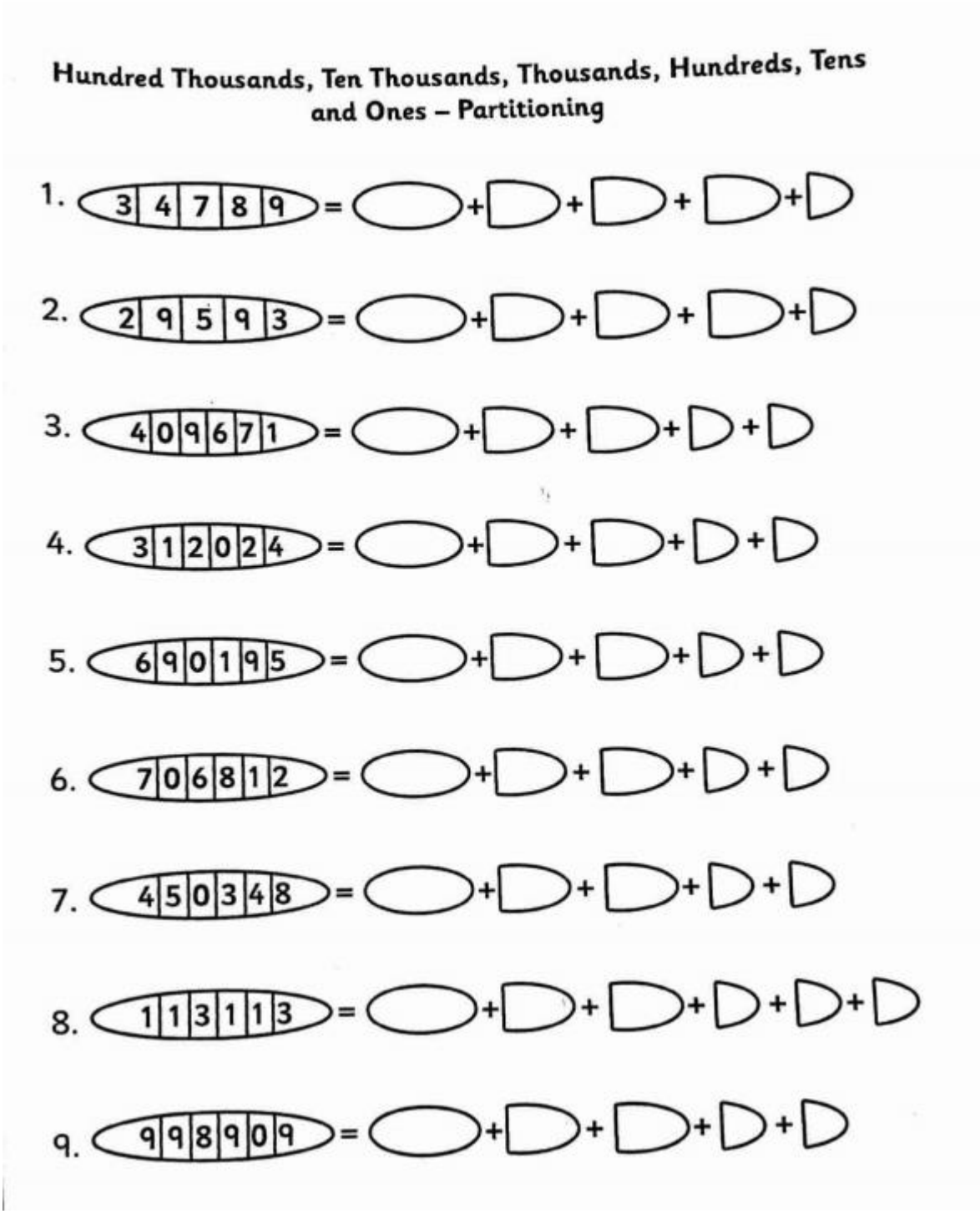
11. 

12. 

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 4 Page 1



By the end of the term you need to reach 50 points, this must include ***<u>at least</u>*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 5 Page 1

Writing Words to 1 000 000 in Numbers

Write the following words in numbers:

Two hundred and forty five thousand, eight hundred and forty six	245 846
Six hundred thousand, seven hundred and thirty two	
Nine hundred and thirteen thousand, five hundred and forty one	
Seven hundred and fifteen thousand, two hundred and twenty eight	
Four hundred and six thousand, seven hundred and ninety four	
Nine hundred and thirty six thousand, two hundred and fifty five	
One hundred and seventeen thousand and four	
Five hundred and thirty five thousand, seven hundred and six	
Two hundred thousand and twenty two	
Four hundred and eighty eight thousand and sixty	
Eight hundred and forty eight thousand, nine hundred and three	
Nine hundred and ninety one thousand, one hundred and nineteen	
One hundred and ninety nine thousand, nine hundred and nineteen	
Five hundred and fifteen thousand, one hundred and fifty one	

By the end of the term you need to reach 50 points, this must include ***<u>at least</u>*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 5 Page 2

Writing Numbers to 1 000 000 in Words and Numbers

Write the following in words and in numbers:

	56 601
	90 452
Two hundred and fourteen thousand, three hundred and twelve	
Six hundred and fourteen thousand and fifty nine	
	345 327
Four hundred thousand, two hundred and twelve	
Eight hundred and eight thousand, eight hundred and eight	
	880 880
	666 000
Six hundred and sixteen thousand, one hundred and sixty one	
	797 779
Three hundred and thirty seven thousand and thirty seven	
	340 819
Seven hundred and seventeen thousand, one hundred and seventy	

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 12 Page 1

Roman Numerals – Recognising Years

I can convert years written in Roman numerals.

The **rules** that must be followed for accurate use of Roman numerals are as follows:

1. Symbols are written from left to right in value order.
2. To avoid having four characters in a row, some characters can be subtracted from others when placed BEFORE them.
3. I placed before V or X indicates one less.
4. X placed before L or C indicates ten less.
5. C placed before D or M indicates a hundred less.

The seven basic Roman numerals in use are as follows:

I = 1
V = 5
X = 10
L = 50
C = 100
D = 500
M = 1000

This is how we would translate the year 1971

1000	900	70	1	**1971**
M	CM	LXX	I	**MCMLXXI**

1. Work out each of the following years in Roman numerals.

A.

1000	900	90	9	**1999**

B.

2000	0	0	5	**2005**

C.

1000	900	50	6	**1956**

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 12 Page 2

D.

1000	800	80	8	1888

2. Work out which year the following historical figures were born.

Who	Roman Numeral Year of Birth	Translation
 Marie Curie	MDCCCLXVI I	
 Winston Churchill	MDCCCLXXIV	
 Queen Elizabeth	MCMXXVI	
 John Lennon	MCMXL	
 You!		

Challenge: Can you work out how old these people were when they died and who lived the longest life?

By the end of the term you need to reach 50 points, this must include **at least** two 10 point tasks.

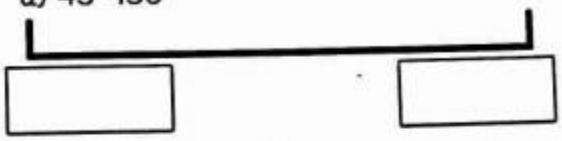
50 Point Challenge - Maths

Challenge Number: 11 Page 1

The Nearest 10 000

Write the ten thousands either side of the given number and mark it approximately on the number line. Then circle the 10 000 to which the given number is closer. (Remember 5 (5000) goes up).

a) 43 930



b) 67 509

c) 30 591

d) 45 662

e) 89 014

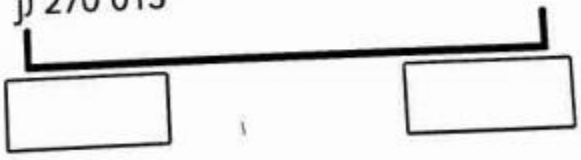
f) 12 300

g) 24 677

h) 476 545

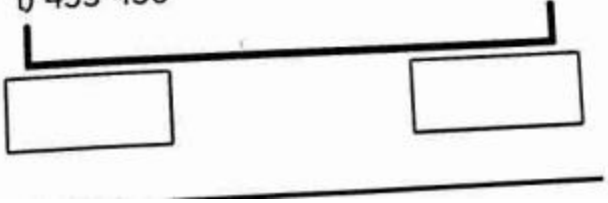
i) 135 314

j) 270 013



k) 349 718

l) 455 450



By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 11 Page 2

The Nearest 10 000 (2)

Round the following numbers to the nearest 10 000.

16 023 →	120 532 →	195 870 →
27 467 →	244 665 →	200 287 →
49 501 →	315 500 →	375 828 →
62 090 →	455 838 →	199 777 →
76 327 →	626 112 →	471 727 →
92 105 →	731 008 →	999 300 →

Round the following populations to the nearest 10 000.

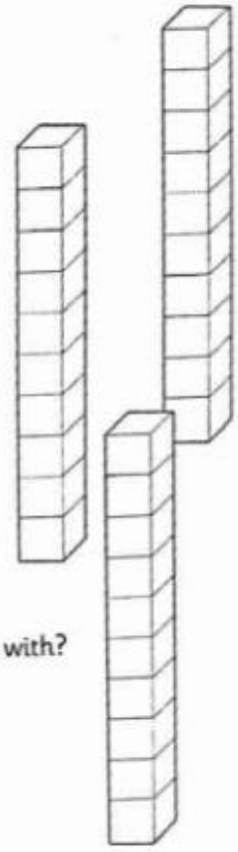
Places	Population	to the nearest 10 000
Iceland	317 900	
Bahamas	346 000	
Malta	416 333	
Samoa	179 000	
Maldives	314 000	
Solomon Islands	536 000	
Guyana	761 000	
Cyprus	801 851	
Fiji	854 000	

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 6

Counting Forwards and Backwards in Powers of 10 Word Problems



Answer the following questions:

1. What number is 1000 more than 3683?
2. How many less is 5693 than 5703?
3. What number is 10 000 less than 1 234 508?
4. If I add 100 to a number I get 3467. What number did I start with?
5. 23 890 is how many more than 13 890?
6. What number is 100 more than 45 901?
7. Add 10 000 to 270 801.
8. If I subtract 1000 from a number I get 19 230. What number did I start with?
9. What number is 100 000 more than 671 023?
10. Subtract 1 000 000 from 30 782 901.

Write the following as calculations and solve them.

A. 7503 cars go over a bridge in February. In march, 1000 more cars go over the bridge than in February. How many go over the bridge in March?

B. There are 30 903 books in a mobile library collection, but 1000 of these are on loan. How many books are left in the library?

C. A girl wins £10 000 for winning a tennis competition. She has now won £35 600 in prize money altogether. How much had she won before winning the £10 000?

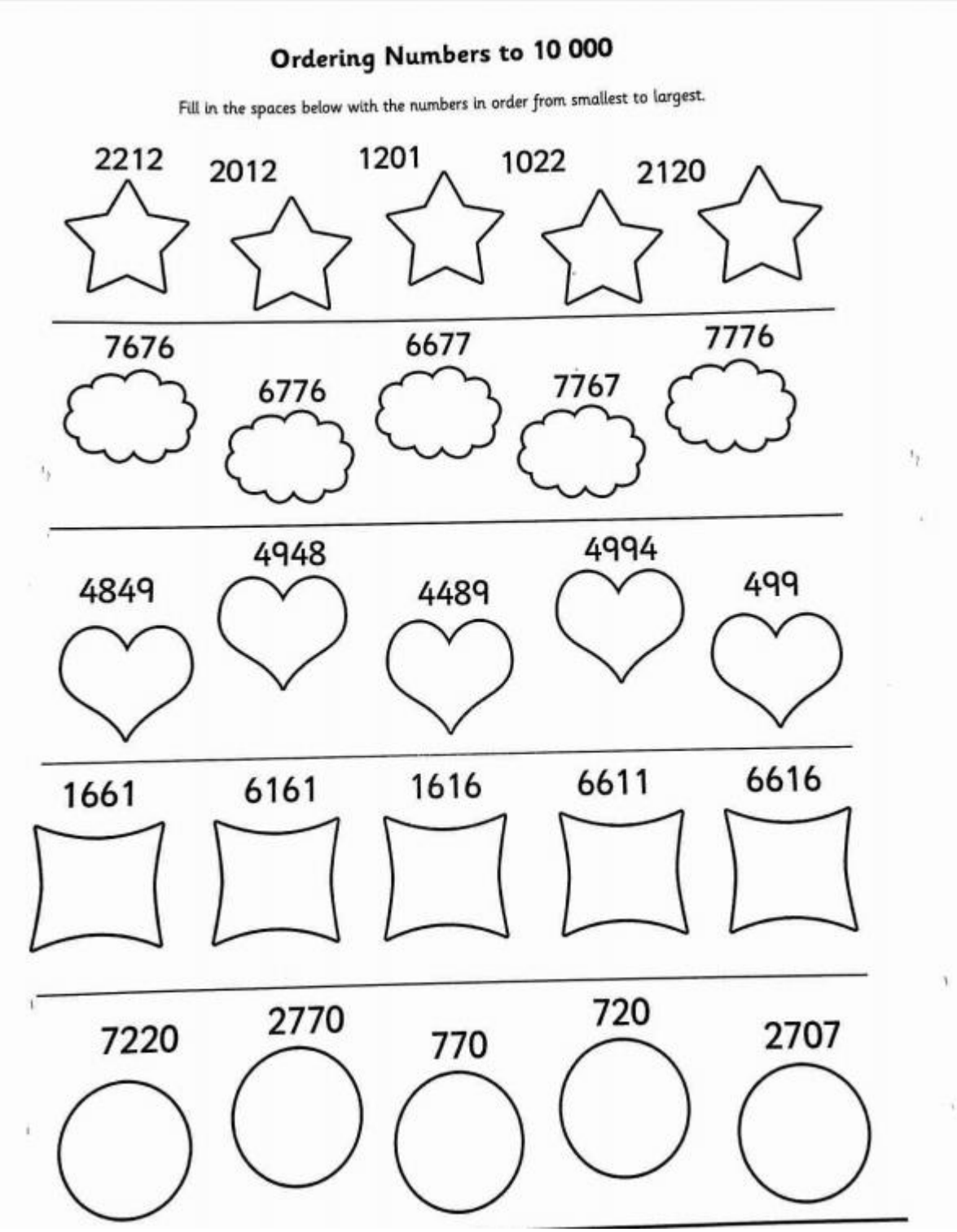
D. A car has 34 678 miles on the milometer, but it had already travelled 100 000 miles. How many miles has it travelled altogether?

E. A factory makes 305 800 glass bottles a day in March, which is 10 000 more than it made in February. How many bottles did it used to make each day in February?

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 4 Page 2



By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 13

Name: Date:

Hydra

9/36	4/16	8/32	5/20	4/16	6/24	7/28	2/8	5/20	9/36	10/40	3/12	10/40	8/32	9/36	5/20	9/36	4/16	7/28
8/32	5/20	2/8	2/8	1/4	6/24	5/20	5/20	4/16	7/28	8/32	1/4	3/12	3/12	5/20	4/16	4/16	3/12	8/32
2/8	5/20	8/32	9/36	3/12	3/12	4/16	10/40	10/40	8/32	9/36	3/12	6/24	9/36	10/40	2/8	5/20	9/36	6/24
5/20	1/4	8/32	7/28	9/36	8/32	3/12	8/32	2/6	7/28	5/20	7/28	1/4	6/24	1/4	3/12	4/16	8/32	2/8
4/16	8/32	8/32	2/8	4/16	2/8	9/36	2/6	5/10	8/24	10/40	6/24	6/24	8/32	5/20	4/16	1/4	4/16	1/4
10/40	3/12	8/32	9/36	10/40	5/20	6/24	1/3	5/10	3/6	5/15	3/12	4/16	7/28	7/28	1/4	8/32	6/24	4/16
2/8	1/4	3/9	4/16	2/8	10/40	7/28	5/15	1/2	6/18	6/24	6/24	6/24	6/18	5/20	6/24	8/32	4/16	8/32
2/8	8/24	1/2	9/27	6/24	4/16	4/16	9/27	7/14	2/6	1/4	9/36	3/9	9/18	4/12	2/8	6/24	7/28	5/20
4/12	5/10	1/2	9/18	8/24	5/20	1/3	10/20	5/10	8/24	1/4	3/9	1/2	8/16	7/14	5/15	6/24	3/12	9/36
8/32	8/24	8/24	5/10	1/2	7/21	9/27	5/10	6/12	5/15	8/24	10/20	9/18	3/9	6/18	9/36	4/16	9/36	10/40
8/32	10/40	6/24	8/24	3/6	4/8	4/12	8/16	3/6	8/24	1/2	1/2	4/12	6/24	1/4	9/36	8/32	3/9	9/27
9/36	10/40	10/40	6/24	7/21	10/20	4/12	8/16	6/12	7/21	1/2	6/18	2/6	3/12	7/28	6/24	3/9	3/6	2/6
5/20	4/16	4/16	9/27	7/14	7/14	9/18	1/2	6/12	2/4	6/12	9/18	6/12	2/6	4/16	8/24	10/20	6/18	5/20
6/24	3/12	3/9	7/14	3/6	4/8	8/24	6/12	1/3	2/4	4/8	6/12	7/14	6/18	5/20	1/3	6/12	1/3	8/32
10/40	5/20	8/24	9/18	1/2	1/3	7/14	2/4	3/6	8/24	5/10	8/16	2/6	1/3	1/3	7/14	6/18	5/20	1/4
7/28	7/28	6/24	9/27	7/14	5/15	8/16	10/20	2/4	4/12	7/14	9/18	7/21	6/12	8/16	1/3	10/40	5/20	7/28
1/4	3/12	4/16	1/3	1/2	9/27	8/24	6/18	7/21	7/21	5/10	3/9	3/12	4/12	8/24	1/4	4/16	8/32	1/4
2/8	2/8	1/3	5/10	3/6	6/18	1/4	7/28	5/20	9/27	7/14	6/12	8/24	7/28	8/32	1/4	8/32	6/24	10/40
3/9	5/15	8/24	8/24	8/24	1/3	3/9	3/9	3/9	1/3	1/3	8/24	3/9	6/18	2/6	1/3	5/15	3/9	7/21
2/6	2/6	8/24	9/27	5/15	6/18	3/9	7/21	8/24	6/18	2/6	9/27	1/3	7/21	8/24	8/24	8/24	7/21	7/21

Key:

Equal to 1/2	Green
Equal to 1/3	Blue
Equal to 1/4	Gray

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 18

Name: Date:

Parrot

8.75	0.95	9.05	8.65	6.05	6.45	6.05	3.75	2.75	4.59	7.58	6.54	3.52	6.15	1.45	4.15	3.45	3.35	0.05
1.15	0.35	6.65	3.15	8.35	4.35	7.15	6.45	6.25	0.15	5.19	5.82	9.52	5.34	6.85	7.95	9.15	2.45	4.35
0.05	8.15	2.25	6.25	0.85	1.05	8.65	8.65	4.45	5.87	5.8	5.7	5.87	5.33	5.22	7.95	1.65	4.45	7.85
1.65	8.95	1.65	2.15	8.85	2.35	9.15	9.75	5.67	5.4	3.12		5.43	5.93	2.51	2.53	2.75	2.35	4.85
0.65	1.25	4.45	1.75	2.65	4.65	0.25	4.15	5.24	5.68	5.18	5.36	9.57	9.58	4.57	7.57	4.54	8.75	2.85
3.75	2.25	7.35	9.95	6.95	2.95	3.65	0.25	5.84	5.61	5.28	8.54	0.58	9.32	4.5	7.59	0.59	2.35	6.45
3.35	4.85	6.35	8.95	6.75	0.15	7.65	0.85	5.19	5.2	5.03	7.54	2.54	0.6	8.95	4.58	6.57	1.65	4.05
6.25	2.95	4.65	1.75	8.75	0.35	0.25	1.85	5.48	5.98	5.32	3.5	0.59	1.57	1.15	4.56	3.75	8.75	1.95
1.75	3.35	1.05	9.05	2.65	7.65	7.45	5.68	5.33	5.87	5.82	5.96	5.48	7.45	3.95	9.95	4.45	7.95	0.75
9.75	7.25	7.75	0.85	9.05	1.75	0.35	5.26	5.88	5.67	5.38	5.81	5.71	5.12	0.65	1.85	8.95	9.35	3.85
0.65	3.35	6.65	7.45	2.05	9.75	5.6	5.7	5.92	5.34	5.79	8.59	9.59	0.56	9.65	3.85	3.25	9.35	8.05
5.11	5.49	2.35	1.75	8.45	9.85	5.03	5.1	5.87	5.74	6.5	4.56	3.59	0.51	9.75	2.25	1.65	2.65	0.65
2.25	5.22	5.91	1.15	0.35	5.91	5.4	5.42	5.41	5.98	0.56	8.51	1.51	2.52	8.25	1.95	3.35	2.25	4.05
0.05	6.85	5.16	5.87	5.64	5.18	5.16	5.12	5.68	5.66	6.59	7.59	1.52	9.05	8.95	0.05	1.15	4.95	1.95
1.85	2.45	6.65	5.99	5.08	5.18	5.92	5.08	5.27	6.59	6.57	2.53	9.58	4.47	4.05	8.35	6.85	2.25	6.75
4.25	7.75	1.75	8.21	5.32	5.37	5.1	5.4	6.56	7.59	4.58	6.5	9.05	7.45	6.43	9.35	0.05	0.35	2.05
1.35	9.65	3.1	0.65	8.75	2.59	4.35	2.25	1.57	9.65	1.45	2.05	1.95	0.15	4.25	0.82	8.85	7.25	7.25
1.85	8.78	1.85	1.25	2.35	3.54	2.59	0.25	8.54	6.59	2.95	7.75	8.45	2.25	8.95	6.05	9.42	6.45	3.95
6.15	3.24	9.96	3.32	0.98	9.16	8.78	2.41	9.84	1.81	0.72	2.41	8.32	9.32	9.96	2.7	6.43	2.35	3.85
4.45	6.93	9.35	4.35	0	6.35	9.95	8.71	9.95	2.25	7.17	9.65	7.85	8.64	6.85	2.15	7.08	8.85	8.15

Key:

5 in the ones place	Red
5 in the tenths place	Orange
5 in the hundredths place	Blue
Does not have a 5	Gray

*Blank squares are white

By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.

50 Point Challenge - Maths

Challenge Number: 8

Fractions.

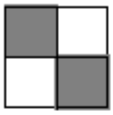
Draw each diagram. Write by the diagram the fraction **shaded**.

1). 

2). 

3). 

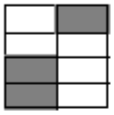
4). 

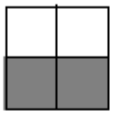
5). 

6). 

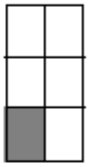
7). 

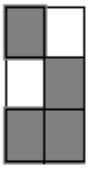
8). 

9). 

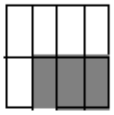
10). 

11). 

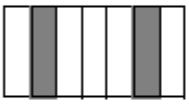
12). 

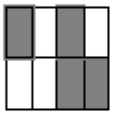
13). 

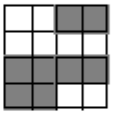
14). 

15). 

16). 

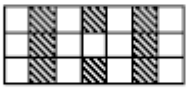
17). 

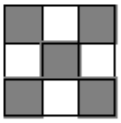
18). 

19). 

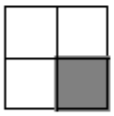
20). 

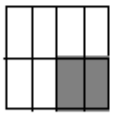
21). 

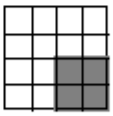
22). 

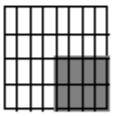
23). 

24). 

25). 

26). 

27). 

28). 

29). 

30). 

31). 

32). 

33). What do you notice about 25)., 26)., 27)., and 28). ?

34). What do you notice about 29)., 30)., 31)., and 32). ?

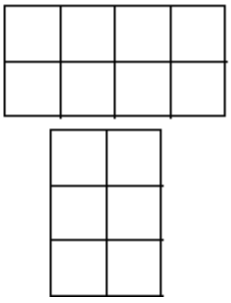
35). Draw this diagram for each question. Shade in

a). $\frac{1}{2}$ b). $\frac{1}{8}$ c). $\frac{3}{8}$ d). $\frac{2}{4}$

e). $\frac{4}{8}$ f). $\frac{1}{4}$ g). $\frac{2}{8}$ h). $\frac{3}{4}$.

36). Draw this diagram for each question. Shade in

a). $\frac{1}{2}$ b). $\frac{2}{3}$ c). $\frac{1}{6}$ d). $\frac{2}{6}$



By the end of the term you need to reach 50 points, this must include ***at least*** two 10 point tasks.