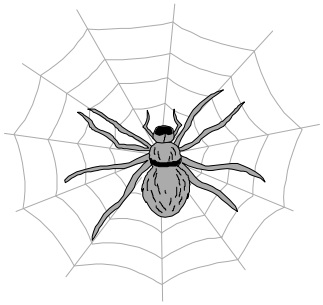
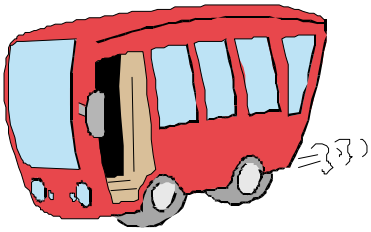
‘Real Life’ Problems A

1. I think of a number, then subtract 18.
The answer is 29.
What was my number?



2. A spider has 8 legs.
How many legs have 7 spiders?
How many legs have 15 spiders?

3. 4 pins are used to display a picture.
How many pins are used to display 10 pictures?
How many pins are used to display 19 pictures?



4. A bus seats 52 people. No standing is allowed.
!7 people get off a full bus. How many were left on?
How many people can sit on 6 buses?
How many buses are needed to seat 327 people?

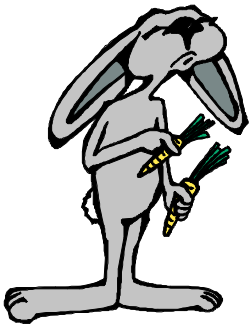
5. I have read 134 pages of the 512 pages of my book.
How many more pages must I read to reach the middle?

6. You start to read a book on Thursday. On Friday you read 10 more pages than on Thursday. You reach page 60.
How many pages did you read on Thursday?

7. Which amounts up to £1 cannot be paid exactly with fewer than 6 coins?

8. A yo-yo casts 65p. How many can you buy for £2?
How much change will there be?

9. Kobi saved 15p a week for one year. How many pounds did he save?



10. Of the 96 children in Y6, ¾ have pets.
45 children have a dog.
21 children have a cat.
How many Y6 children have other kinds of pets?

Maths Investigation

The flies are always tastier on the other side!

- The purple frogs want to get to the right side of the pond as they think the blue frogs get the juiciest flies.
- The blue frogs, on the other hand, think the purple frogs get fatter flies and want to get to the left of the pond.
- Frogs can only jump to EMPTY lily pads.
- Frogs can only jump over ONE other frog at a time.
- Frogs don't know how to jump backwards!
- Try to show your working if you can.

Non Routine Questions

1. $c + 12 < 20$

Which of the following is true?

A. c is greater than 8

B. c is less than 8

C. c is equal to 8

D. c is greater than 32

E. c is less than 32

F. c is equal to 32

2.

I think of a number.
I add 6 to this number
I then multiply my answer by 4
My final answer is 56

What number did I think of?

3. 150 people are on a train to Edinburgh.
At Haymarket 70 people get off the train, whilst 24 get on.
How many people are on the train when it gets in to Edinburgh?

4. 64 x 16 = 1 024
64 x ___ = 4 096

5. There are some digits missing in this sum.
8_2 - 27_ = 556

Puzzles & Problems

CONSECUTIVE numbers are numbers which follow on continuously from one another, eg. 12 and 13, or 43 and 44.

1) Find three consecutive numbers which add up to 39.

2) Find three consecutive numbers which add up to 66.

A PRODUCT is an answer that you get when you multiply two or more numbers by each other.

3) Find a pair of numbers with:

   a) a sum of 11 and a product of 24.

   b) a sum of 40 and a product of 400.

   c) a sum of 15 and a product of 54.

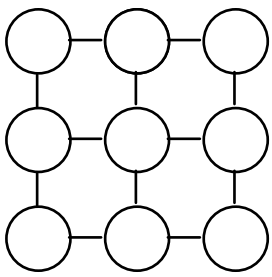
4) Find three consecutive numbers with a total of 333.

5) Find two consecutive numbers with a product of 182.

6) Find two consecutive numbers with a product of 1332.

7) Find two numbers with a product of 899.

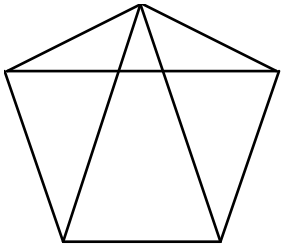
8) Arrange the numbers 1, 2, 3, 4, 5, 6, 7, 8 and 9 in the circles so that each side of the square adds up to 12.



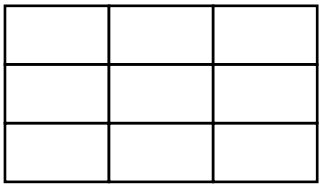
9) Draw three rings. Use each of the numbers from 1 to 9. Write them in the rings so that each ring has a total of 15.

10) How many different rectangles can you make using 12 squares on your page? Draw them.

11) Count all the triangles in this diagram and draw them:



12) Count all the rectangles in this diagram and draw them:

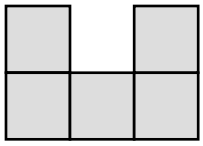


[N.B. there are probably more than you think! - more than 20]

13) Copy & complete this multiplication table:

x		4	9	
		8	18	
3		12		
	35			14
				2

14) This is half a shape:



Sketch some of the different whole shapes the original could have been. Mark any line of symmetry of these shapes.