مدرسة القديسة مريم الكاثوليكية الثانوية ـ دبي
ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

MATHS PRACTICE – YEAR 6

NAME _____ YEAR 6 _____

1.

Without using a calculator work out the answers to the following sequences:

1. 100 – (20 x 3) =

2. (35 – 15) + (27 – 7) =

3. 15 + (6 x 6) =

4. (4 + 5) x (3 + 6) =

5. (5 + 5) x (5 – 2) =

6. 50 – (6 x 6) =

7. (4 + 8) x (3 – 2) =

8. (9 – 3) + (6 x 6) =

9. (5 x 7) – (2 x 5) =

10. 56 – (4 x 7) =

11. 78 – (10 x 7) =

12. (7 x 7) + (4 x 8) =

13. (45 – 23) + (5 x 8) =

14. 38 – (5 x 7) =

15. (100 – 45) + (7 x 7) =

16. 45 – (9 x 4) =
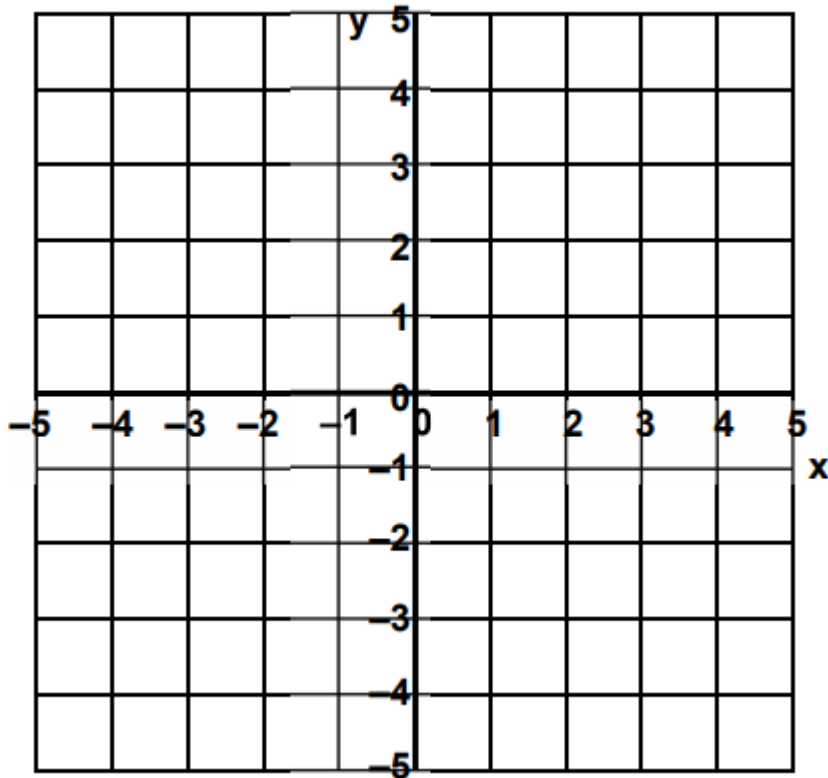
Not so tricky eh! I bet you got all these correct!

Just a couple of trickier problems.
By putting in brackets in different places, how many different sums and answers can you find for these two sequences:

1. 4 + 4 x 5 – 3 =

2. 8 + 5 x 1 + 3 – 6 =

2.

Draw this polygon on the grid:

(3,1) (5,1) (5,2) (4,2) (4,4) (1,4)   What is it called?

Mark the parallel sides with arrows.

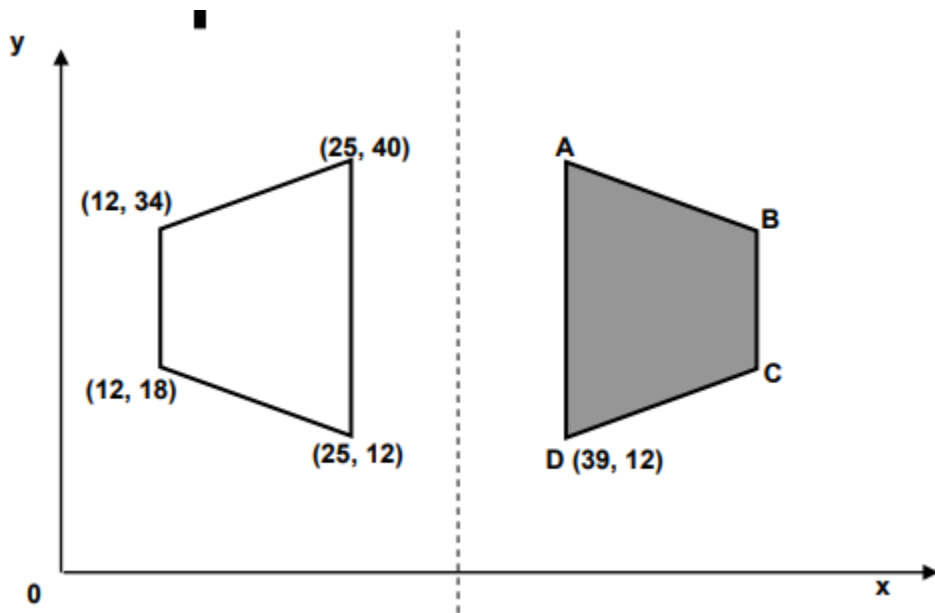Reflect the shape in the y-axis. Write down the co-ordinates of the reflection.

(,) (,) (,) (,) (,) (,)

Now reflect the first shape in the x-axis. Write down the co-ordinates of this reflection.

(,) (,) (,) (,) (,) (,)

What do you notice about the co-ordinates?

3.

The shaded trapezium is a reflection in the dotted line of the white trapezium.

a) What are the co-ordinates of **A, B** and **C** ?

   A (, **)** **B (** , **)** **C (** , **)**

b) If the shaded trapezium is **rotated 90° anti-clockwise about A,**
   what are the new co-ordinates of the point **D** ?

   (, **)**

c) Draw the diagonals on the white trapezium.
   What is the **y co-ordinate** of the point where the diagonals cross?

4. Amy went into her local stationery shop. Her mum had given her £2.50 to spend.

Amy liked the look of some luminous pens, which cost 15p each, and some fancy pencils, which cost 10p each.

She bought four times as many pens as pencils and was given 40p change.

How many of each did she buy?

5.

Shape puzzle

Each shape stands for a number.

The numbers shown are the totals of the line of four numbers in the row or column.
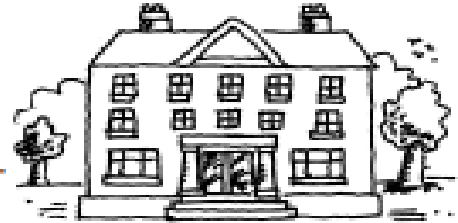
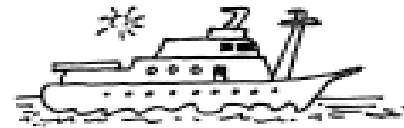Find the remaining totals.
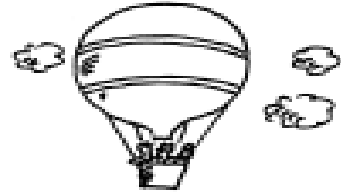
6.

Slick Jim

Slick Jim won the lottery.

He spent two thirds of his winnings on a very posh house.

He spent two thirds of what he had left on a luxury yacht.

Then he spent two thirds of what he had left on a hot air balloon.

He spent his last £20000 on a flashy car.

How much did Slick Jim win on the lottery?

7. Draw the shape.

The shape has two pairs of parallel sides.	The area of the shape is 24cm².
The shape has four right angles.	The shape's perimeter is numerically larger than its area.
The length of each side is an even number.	The shape is irregular.
The shape is a quadrilateral.	The shape has two lines of symmetry.

8. Complete the following:

1)　0.02 + ____ = 2　　　　　　　　　　　(2) 0.9 + 0.12 = ____

3) ____ + 0.3 = 1.5　　　　　　　　　　　(4)　0.01 + 0.09 = ____

5)　0.5 + _____ = 1.55　　　　　　　　　(6)　0.3 x 3　=　____

7)　0.2　x _____ = 1.6　　　　　　　　　(8) ____ x　3　= 1.8

9)　0.45 x 2　=　_____　　　　　　　　　(10)　4.3　x 6　=　_____

9.　Julia has **a number of equilateral triangles**.
　　Each equilateral triangle has a **perimeter** of **12 cm**.

　　a) **Work out** the **length of each side** of the **equilateral triangle**.

　　b) Julia uses these **triangles** to form **one big equilateral triangle**.
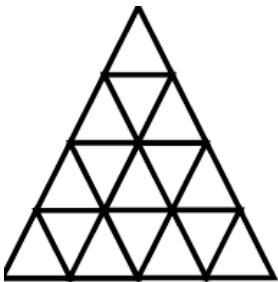
　　　　　　　　　i) **Work out** the **perimeter** of the **big equilateral triangle**.

　　　　　　　　　ii) **Shade ¼** of the **big equilateral triangle**.

10.

Age old problems

1.　My age this year is a multiple of 8.
　　Next year it will be a multiple of 7.
　　How old am I?

2.　Last year my age was a square number.
　　Next year it will be a cube number.
　　How old am I?
　　How long must I wait until my age is both
　　a square number and a cube?