

Maths Challenges Years 5 and 6 – Resource 1

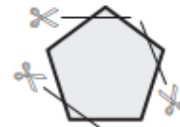
1 What is the answer to $1111 + 111 + 11 + 1$?

- A 1111 B 1212 C 1234 D 4321 E 4444

2 I buy three sweets at 20p each and twenty sweets at 3p each.
What is the total cost?

- A 6p B 23p C 40p D 60p E £1.20

3 If you cut off three of the corners of a pentagon as shown in the diagram, you will get three triangles and one other shape. Which of the following shapes will this be?



- A square B trapezium C hexagon D octagon E dodecagon

4 Jana bought four copies of the book *Aftermaths*. The total cost was £27.
Which of the following calculations gives the cost of one book in pounds?

- A $27 \div 4$ B $4 \div 27$ C $27 - 4$ D 4×27 E $4 + 27$

5 Albert Einstein was born on 14 March 1879.
How old was he in November 1914?

- A 14 B 21 C 35 D 53 E 79



6 Bognor Rocks FC have a total of 15 points after 6 matches.
In their league teams get 3 points for a win, 1 point for a draw and 0 points for a defeat. How many defeats did they have?

- A 0 B 1 C 2 D 3 E 5

7 I have ridden my bike for 20 minutes at 12 miles per hour.
How many miles have I cycled in that time?

- A 1 B 2 C 4 D 12 E 20

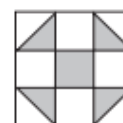


8 The sum of the digits of 2014 is a prime number. How many years will it be until the sum of the digits of the year is again a prime number?

- A 2 B 4 C 6 D 7 E 9

9 What fraction of the whole square is shaded?

- A $\frac{1}{2}$ B $\frac{1}{3}$ C $\frac{1}{4}$ D $\frac{1}{5}$ E $\frac{5}{13}$



- 10 Joe Kerr played a trick on his teacher.
He changed all the 1s on the board to 7s and all the 7s to 1s.
Joe's **altered** versions are shown below.
Which of the original calculations had the smallest answer?



A 1×11 B 1×17 C 1×71 D 7×17 E 7×77

- 11 I have 4 equilateral triangles. Each of them has a perimeter of 15 cm.
I fit all of them together to make one large equilateral triangle,
as shown. What will the perimeter of the large triangle be?



A 15 cm B 30 cm C 40 cm D 50 cm E 60 cm

- 12 I am on the top of a helter-skelter facing east.
The chute will turn me anti-clockwise through 630° .
In which direction will I be facing at the bottom?

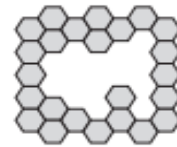


A south B east C north D west E north-west

- 13 G.O. Metric drew a quadrilateral with two pairs of equal sides but only one pair of equal angles. Which of the following polygons could it have been?

A square B rectangle C parallelogram D kite E trapezium

- 14 A wall was tessellated with hexagonal tiles.
However, some have fallen off in the middle, as shown.
How many have fallen off?



A 14 B 15 C 16 D 17 E 18

- 15 If the day before the day before yesterday was Thursday, what is the day after the day after tomorrow?

A Saturday B Sunday C Monday D Tuesday E Wednesday

- 16 A slug called Glug eats 2 tomatoes for every 3 strawberries.
Yesterday it had eaten 35 tomatoes and strawberries altogether.
How many tomatoes did it eat?

A 5 B 7 C 14 D 15 E 21

- 17 Gwen is standing directly behind her brother Huw in a single-file line. There are 11 people in front of her and 12 people behind him.
How many people are there altogether in the line?



A 21 B 22 C 23 D 24 E 25
