

Maths Challenges Years 5 and 6 – Resource 5

1. Harry Potter was born on 31 July 1980.

How many years ago was that?

A 10 B 20 C 30 D 40 E 50



2. Which of the following is closest to the length of my little finger?

A 1 foot B 2 km C 3 mm D 4 m E 5 cm

3. Boastful Grandad says that he can walk 10 miles in 3 minutes. How likely is this?

A impossible B unlikely C possible
D likely E very likely



4. Chay Pup folds a regular hexagon along each of its diagonals. The result is the folded triangular shape shown on the right.

When it is unfolded and cut along all of the folds, how many triangular pieces will there be?

A 2 B 3 C 4 D 5 E 6



5. The Simpsons go on their family summer holiday at midday on 22 August and return home at midday on 2 September.

How many nights are they away from home?

A 11 B 12 C 13 D 14 E 15

6. Spike the hedgehog eats 8 slugs each day except on Sundays, when she eats 10 slugs.

How many slugs does she eat in one week?

A 50 B 58 C 60 D 66 E 70

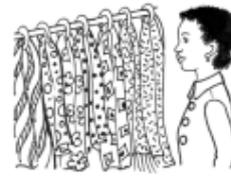


7. My baby sister is 1000 days old today.

How many years old will she be on her next birthday?

A 3 B 4 C 5 D 10 E 12

13. Last week my maths teacher said that today she would be wearing a new scarf. Kiran thought it would be red and plain, Lila suggested blue and stripy, while Manul was sure it would be red and flowery. Each of them was correct in stating **either** the colour **or** the pattern of the scarf.



Which of the following describes my teacher's scarf?

- A blue and flowery B plain blue C red and flowery
D plain red E red and stripy

14. I am about to start my day.
In which order should I carry out the following instructions?

D = dry yourself G = get out of bed P = put on clothes
T = take a shower W = wake up

- A WDGPT B PDTWG C GDTPW
D WGTDP E PTDGW

15. Marge Rine has a cube of butter with sides of 4 cm.
She spreads all the butter evenly on her piece of toast which is 8 cm by 10 cm. [Then she adds the jam.]



How thick is the butter on the toast?

- A 2 mm B 4 mm C 8 mm D 1 cm E 4 cm

16. The Royal Society for the Protection of Birds (RSPB) planted 12 000 trees at Dovestone Reservoir in the Peak District in 32 days, with the help of 15 volunteers.

If all the volunteers worked on their own at the same speed, how many trees on average did each volunteer plant each day?

- A 12 B 16 C 20 D 25 E 32

17. A rectangular piece of paper is folded in half to form a square.

The area of the square is 36 cm^2 .

What is the perimeter of the original rectangle?

- A 9 cm B 18 cm C 36 cm D 72 cm E 144 cm

18. The diagram shows **four** overlapping flower shapes.

The areas of the shapes are 4 cm^2 , 9 cm^2 , 16 cm^2 and 25 cm^2 .

What is the total shaded area in cm^2 ?

- A 13 B 14 C 15 D 16 E 17



19. In 2010 about 120 million *digital still cameras* were sold worldwide. By 2018 this number had decreased by 85%.

About how many million digital still cameras were sold in 2018?

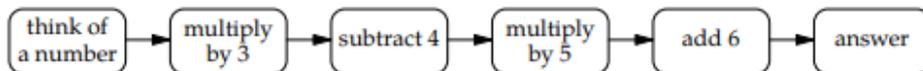
- A 18 B 28 C 38 D 48 E 58

20. Murben knows that, in some order, the symbols \sphericalangle , \bowtie , \llcorner , \blacksquare and \blacksquare , stand for the numbers five, six, seven, eight and nine in the Cnujian language. She also knows that:

\sphericalangle is greater than \blacksquare , \llcorner is less than \blacksquare , \blacksquare is greater than \blacksquare , and \bowtie is greater than \llcorner .

Which of these Cnujian symbols represents the number 5?

- A \sphericalangle B \bowtie C \llcorner D \blacksquare E \blacksquare

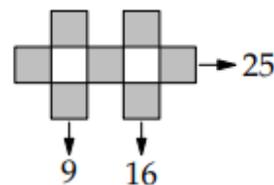


21. Marcia thinks of a positive whole number, and puts it into the number machine above.

What is the largest two-digit number that she could obtain as an answer?

22. The numbers 1 to 9 are each placed in one of the squares in the diagram.

The three numbers in each of the two vertical rectangles add up to 9 and 16 respectively, and the five numbers in the horizontal rectangle add up to 25.



What is the total of the numbers in the seven shaded squares?

