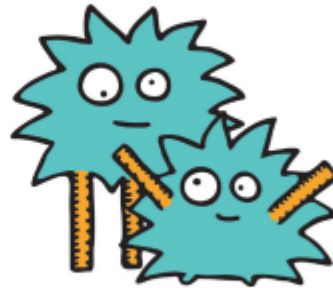
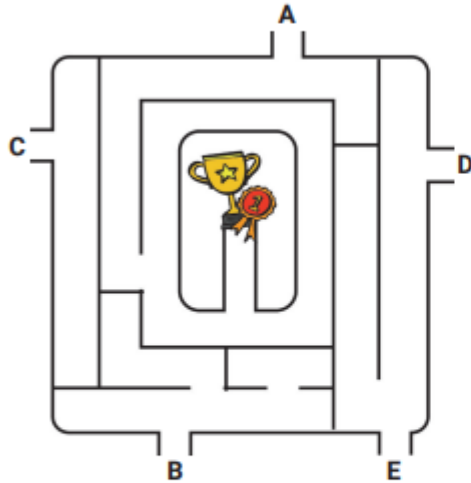


## Maths Challenges Years 3 and 4 – Resource 3

1. Here is a maze. Which entrance would you use to get to the PRIZE?



2. I enter the number 2021 on this phone keypad. If I start on the '2' button, which of these describes how my finger will move to reach '0', '2' then '1'?



- A** left one, right one, down three    **B** down three, up one, left one    **C** down three, up three, left one    **D** down three, up three, right one    **E** down three, left one, up three

3. Here is an empty multiplication grid. How many of the answer boxes will have an odd number in them?

x	2	5	10
2			
5			
10			

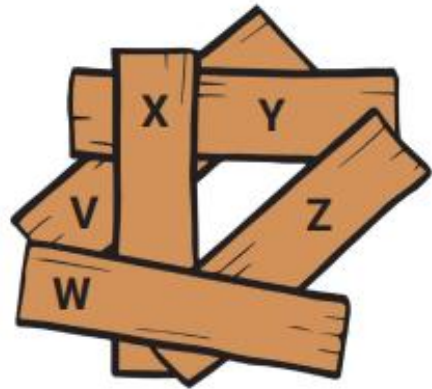
- A** none    **B** one    **C** four    **D** five    **E** nine

4. Halle's mum has a packet of crayons. She has four children. If she gives each child 3 crayons there are 9 left in the packet. How many crayons are in the full packet?



- A 12      B 16      C 20      D 21      E 27

5. Sam Entmixer the builder drops five planks of wood in a pile on the floor – this is what the pile looks like from above. What is the correct order of planks from the **bottom to the top** of the pile?



- A VYZXW      B WZXYV      C YVXZW      D VWXYZ      E VYXZW

6. The minute hand of a clock is pointing to the number 6. After 1 hour and 20 minutes, what number will it be pointing to?

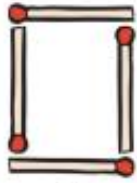


- A 6      B 7      C 8      D 9      E 10

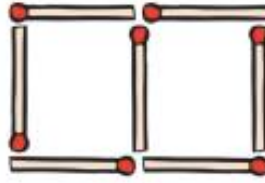
7. Here are the first four shapes of a pattern made from matchsticks.  
How many matchsticks will there be in the sixth shape of the pattern?



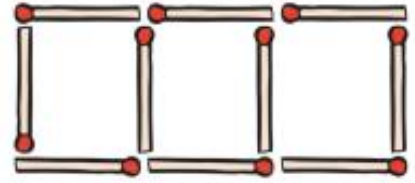
(1)



(2)



(3)



(4)

A 16

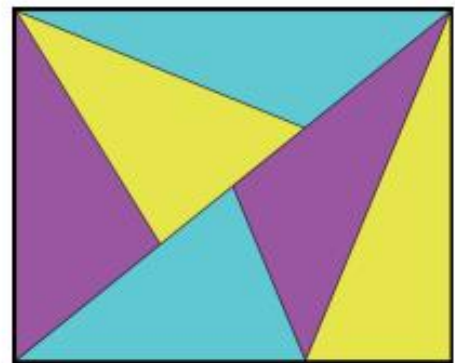
B 17

C 18

D 19

E 20

8. How many triangles are there in this diagram?



A 8

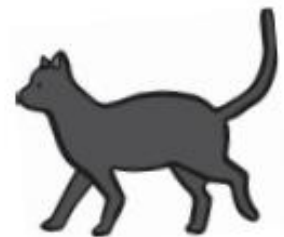
B 9

C 10

D 11

E 12

9. Miss Tabby's online lesson started at 09:15 and lasted for 40 minutes.  
Exactly halfway through the lesson her pet cat wandered across  
the screen! What time did the children see the cat?



A 09:35

B 09:40

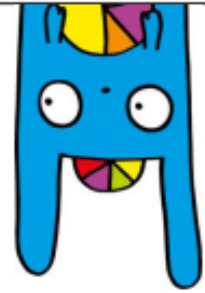
C 09:45

D 09:50

E 09:55

- 
10. In this column addition sum what digit does the letter Y stand for?

$$\begin{array}{r} Y \\ Y \\ + Y \\ \hline XY \end{array}$$



- A** 2      **B** 5      **C** 7      **D** 8      **E** 9

- 
11. Two numbers add together to give 15 and multiply together to give 54.  
The larger of the two numbers is

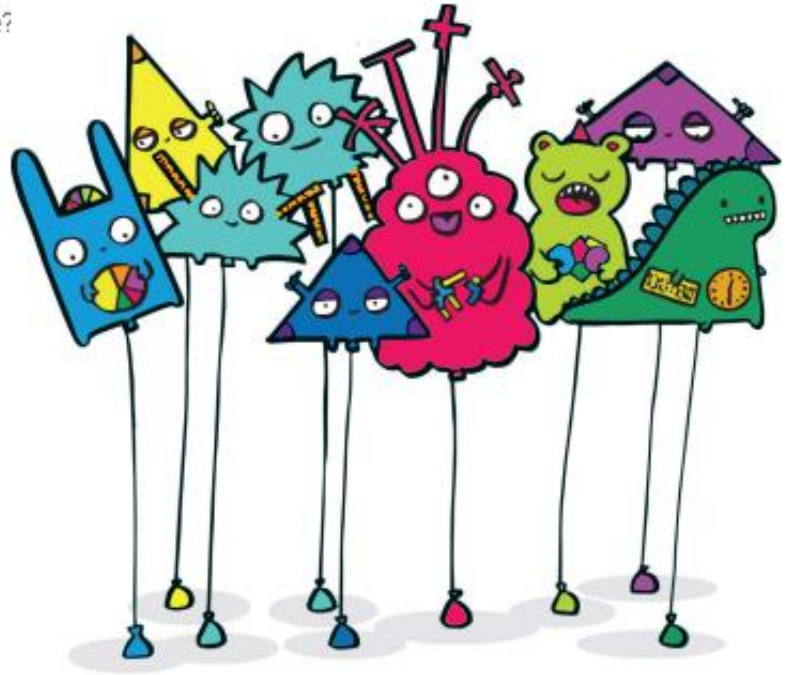
- A** 5      **B** 6      **C** 7      **D** 8      **E** 9

- 
12. In a money bag there are an equal number of 5p coins and 10p coins.  
There are no other coins.  
Altogether there is £1.80. How many coins are in the bag?



- A** 9      **B** 15      **C** 18      **D** 24      **E** 36

- 
13. Each Monster balloon needs to be tied with 35cm of string to stop it floating away.  
You have 4 metres of string.  
How many balloons can you tie?



- A 8      B 11      C 12      D 20      E 39

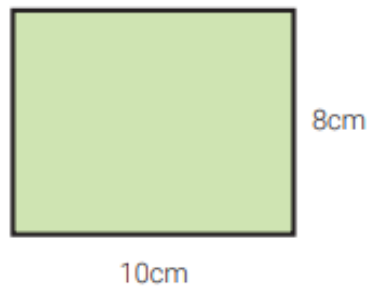
- 
14. The year 2021 is not in any of the 2, 3, 4 or 5 times tables.  
When is the next year that will not be in any of the 2, 3, 4 or 5 times tables?

- A 2022      B 2023      C 2024      D 2025      E 2026

- 
15. Which of the calculations below has an answer closest to 27?

- A  $23\frac{1}{2} + 2$       B  $29\frac{1}{2} - 3$       C  $84 \div 3$       D  $8 \times 3$       E Half of 58

16. The length and width of a rectangle are 10cm and 8cm. The square has the same perimeter as the rectangle. What is the length of one side of the square?

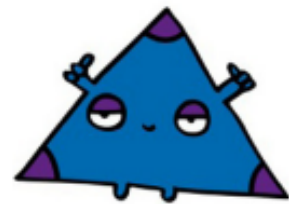


- A 9cm      B 18cm      C 36cm      D 45cm      E 140cm

17. In the calculations below the square and the triangle are covering two numbers that make the calculations correct. What number is the square covering?

$$\triangle - 8 = 12$$

$$\square - \triangle = 12$$



- A 12      B 20      C 24      D 28      E 32

18. Three friends, Ravi, Samina, and Toby went apple picking. Ravi picked half of the apples. Samina picked an eighth of the apples. Toby picked 10 more apples than Samina. How many apples did they pick altogether?

- A 10      B 20      C 30      D 40      E 50

19. There are 22 children in Mr Multiplication's class.  
7 of them are wearing glasses.  
13 of them are girls.  
5 of the girls are wearing glasses.  
How many boys are **not** wearing glasses?

A 2

B 7

C 8

D 9

E 13

- 
20. The riders in a cycling event start one at a time, every 10 seconds.  
Max Speed is the first rider to go, and Miles Behind is the 15th.  
How long after Max starts does Miles start?



A 1 minute  
40 seconds

B 2 minutes  
15 seconds

C 2 minutes  
20 seconds

D 2 minutes  
30 seconds

E 2 minutes  
45 seconds