RELAY QUESTION 1

A spider is climbing up a 30 metre building. Each day it climbs five metres and slides back one metre.

How many days will it take to reach the top?

ANSWER:

RELAY QUESTION 2

Logan built a tower using four different coloured milk cartons. The red carton was below the green carton. The blue carton was above the yellow carton which was above the green carton.

Which carton is on top?

(Only one shot at this question!)

ANSWER:

RELAY QUESTION 3

Chris’ birthday cake was baked in the shape of a cube and was covered on every side with delicious pink icing. If it was cut into 27 cubes, how many pieces would have pink icing on two sides?

ANSWER:

RELAY QUESTION 4

Daisy has to saw a pipe into 7 pieces. If it takes her four minutes to make one cut, how long will it take to cut into 7 pieces?

ANSWER:
RELAY QUESTION 5

I’m thinking of three different numbers.

- They are all four-digit odd numbers.
- The digits of each number add up to 14.
- None of the numbers can be divided by 5.
- These numbers read the same forwards and backwards.

What are the three numbers?

ANSWER:

RELAY QUESTION 6

For her Design and Technology project, Heidi has to hammer five nails into a piece of wood. The nails must be in a straight line and 0.75 centimetres apart.

What is the distance from the first nail to the last?

ANSWER:

RELAY QUESTION 7

When Elaine opened her book, she saw two numbered pages. The sum of these two pages was 317.

What would the next page number be?

ANSWER:

RELAY QUESTION 8

I have 30 socks in my drawer and they vary in colour.

I have 12 black, 10 blue, 2 brown and 6 grey socks. If I close my eyes and pull socks out at random, how many socks must I pull out before I can be certain to have a matching pair?

ANSWER:
Callum bought five tickets to watch a game of football with his friends. The tickets were numbered in order. When the numbers are added together, they total 110. What were the ticket numbers?

**ANSWER:**

Five pupils left their shoes in the changing rooms. Each wore the same brand of shoes, but in a different size. The shoes were sizes 2, 3, 4, 5 and 6.

Stu knew that his were the smallest. Lorraine knew hers were bigger than Kenneth’s but smaller than Zara’s. Al knew his were the largest. Who wears the shoes that are the mean size from the group?

**ANSWER:**

Isabel wants to paint a cube so that no touching faces are the same colour.

What is the least number of paint colours she should buy?

**ANSWER:**

Draw 5 circles (o) and 5 stars (*) on the grid so that there is one of each shape in each row, column and diagonal.

**ANSWER:**
**RELAY QUESTION 13**

Five cars are in a race.  
Their number plates are:  
1733 5824 9762 6465 7525  
- The highest-numbered car finished last.  
- When the digits in the numberplates of the cars that came 1<sup>st</sup> and 2<sup>nd</sup> are added, they give the same total.  
- The cars that came in 3<sup>rd</sup> and 4<sup>th</sup> both have an odd number as the last digit.  
- The cars that came in 2<sup>nd</sup> and 3<sup>rd</sup> both bear numbers that are multiples of five.  

Which car came 4<sup>th</sup>?  

**ANSWER:**

**RELAY QUESTION 14**

In the story Harry was reading, a forever hungry worm ate everything in sight. It ate so much that, incredibly, it doubled its size every day. If it took 11 days for the worm to be fully grown, how long did it take the worm to get to half its full-grown size?  

**ANSWER:**

**RELAY QUESTION 15**

The kids at a camp hold a running race.  
Use these clues to work out their positions at the end of the race. Peter was extremely fast and was the first boy to complete the race. Lisa came in just before Jonathan. Jonathan finished after Catherine. Michelle ran very well and managed to beat Catherine. Peter finished after Michelle but before Catherine.  

Who came first?  
(Only one shot at this question!)  

**ANSWER:**

**RELAY QUESTION 16**

There are 105 animals living on Farrelly’s Farm. There are half as many rabbits as guinea pigs. There are half as many geese as sheep. There are three times as many geese as guinea pigs.  
How many sheep are there?  

**ANSWER:**
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<tbody>
<tr>
<td>2</td>
<td>Blue</td>
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<tr>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>24 minutes</td>
</tr>
<tr>
<td>5</td>
<td>1661, 3443, 7007</td>
</tr>
<tr>
<td>6</td>
<td>3cm</td>
</tr>
<tr>
<td>7</td>
<td>160</td>
</tr>
<tr>
<td>8</td>
<td>5 socks</td>
</tr>
<tr>
<td>9</td>
<td>20, 21, 22, 23, 24</td>
</tr>
<tr>
<td>10</td>
<td>Lorraine</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
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**One possible solution:**

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<table>
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<table>
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<table>
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