Test answers - Position, direction and patterns

Year: Year 2 · Duration: 30 minutes · /20

Answer to Question 1 (4 marks)

a. The part that repeats again and again is **circle, square, square**. This repeating part is called the unit. (1 mark)
b. The picture ends with circle, square, so the third unit is not finished yet. The unit still needs its second square, so the next shape is a **square**. (1 mark)
c. The unit has 3 shapes. 12 ÷ 3 = 4, so 12 shapes make exactly 4 whole units. The 12th shape is the last shape of a unit, which is a **square**. (2 marks: 1 for using the unit of 3, 1 for square)

Answer to Question 2 (4 marks)

a. Each number is 4 more than the one before: 4, 8, 12, 16. So the next two are 16 + 4 = **20** and 20 + 4 = **24**. (2 marks: 1 for each number)
b. Each number is 10 less than the one before: 90, 80, 70, 60. The rule is **take away 10** (subtract 10 each time). (1 mark)
c. From 6 to 11 is 5 more, and from 21 to 26 is 5 more, so the rule is add 5. The missing number is 11 + 5 = **16**, and 16 + 5 = 21 checks it. (1 mark)

Answer to Question 3 (4 marks)

a. Find G on the grid, then read the letter below it for the column and the number at the side for the row: G is in **C2**. (1 mark)
b. Go along to column D and up to row 3: the letter there is **H**. (1 mark)
c. F is in A1. Moving 2 squares right goes A1 to B1 to C1, then 1 square up goes to C2. The bee lands on **C2**, the square with G. (2 marks: 1 for the moves, 1 for C2)

Answer to Question 4 (4 marks)

a. A half turn takes you halfway round, so Zoe faces **the opposite way**, with her back to the window. (1 mark)
b. Two quarters make one half, so two quarter turns in the same direction are **the same as a half turn**. (1 mark)
c. Clockwise then anticlockwise by the same amount undoes the first turn: the turns cancel out. Zoe faces **the window** again. (2 marks: 1 for seeing the turns cancel, 1 for the window)

Answer to Question 5 (4 marks)

a. Add 3 each time. (1 mark)
b. 12, 15: card 5 has **15 stars**. (1 mark)
c. 3 + 6 + 9 + 12 = **30 stars**. (1 mark)
d. Card 8 has 8 × 3 = 24 stars, so she is **not right**. (1 mark)