Answers - Position and direction

Year: Year 1

Answer to Question 1

a. Box B has box A on one side and box C on the other side, so B is **between** A and C.
b. Box A is right beside box B, touching it in the row. A is **next to** B, not under it.
c. Box C is the last box of the row, so it is at the **end**. A row does not have a top.
d. A bird in the sky is higher than the boxes, so it flies **above** them.

Answer to Question 2

a. We read from left to right, so the left end is **1**.
b. The right end is the last number: **5**.
c. Move one place to the right of 2 to get **3**.
d. Move one place to the left of 5 to get **4**.
e. There are 5 numbers. Two are on each side of the middle one, so the middle number is **3**.

Answer to Question 3

a. The arrow points to the top of the page: **up**.
b. The arrow points to the left side: **left**.
c. The arrow points to the bottom of the page: **down**.
d. The arrow points to the right side: **right**.

Answer to Question 4

a. Column A, row 1. The letter is **H**.
b. Column C is the third column, row 2 is the second row up. The letter is **T**.
c. Column E is the fifth column, row 4 is the top row. The letter is **S**.
d. Column D is the fourth column, row 1 is the bottom row. The letter is **P**.

Answer to Question 5

a. In the first picture the arrow moves round by one corner only, like from 12 to 3 on a clock. That is a **quarter turn**.
b. In the second picture the arrow ends up pointing the opposite way, like from 12 to 6. That is a **half turn**.

c. In the third picture the arrow moves round three corners, like from 12 to 9. That is a **three-quarter turn**.
d. Count the quarter turns all the way round: 12 to 3, 3 to 6, 6 to 9, 9 to 12. **4** quarter turns make a whole turn.

Answer to Question 6

a. The question says the top block is red, so the **red** block is at the top.
b. The bottom block is the **blue** block.
c. The block just above the blue one is the **green** block.
d. The block just below the red one is the **yellow** block. From top to bottom the tower is red, yellow, green, blue.

Answer to Question 7

a. Climbing a ladder takes you higher, so you go **up**.
b. A slide takes you from the top to the bottom, so you go **down**.
c. Walking to the door means moving the way you are facing, so you walk **forwards**.
d. Stepping the other way, without turning round, means you walk **backwards**.

Answer to Question 8

a. The row starts on the left with the lion, so the **lion** is at the left end.
b. From the left the order is lion, tiger, monkey, zebra, parrot, snake. Just to the right of the zebra is the **parrot**.
c. Between the lion and the monkey there is only one cage: the **tiger**.
d. Count every cage from the lion to the snake: 1, 2, 3, 4, 5, 6. That makes **6** cages.

Answer to Question 9

a. The order from left is A, B, C, D, E. The left end is **Ali**.
b. The right end is the last one, **Eve**.
c. Between Bea (B) and Dan (D) is C, so **Cara**.
d. To the right of Cara (C) comes D, so **Dan**.

Answer to Question 10

a. Count the columns from A to E: A to B, B to C, C to D, D to E. That is **4** squares to the right.
b. Count the rows from 1 to 4: 1 to 2, 2 to 3, 3 to 4. That is **3** squares up.

c. Add the moves: 4 right + 3 up = **7** moves.
d. Going back she moves 4 left and 3 down, which is the **same 7 moves**, just in the other direction.

Answer to Question 11

a. The robot takes 3 steps, turns, then 2 more steps. Turning is not a step, so 3 + 2 = **5** steps forwards.
b. A quarter turn or a half turn leaves the robot facing a new way. Only a **whole turn** brings it back to face where it began.
c. Two quarter turns the same way make a **half turn**: the robot ends up facing the opposite way.
d. A whole turn is 4 quarter turns, and half of 4 is 2. So **2** quarter turns make a half turn.

Answer to Question 12

a. 1 + 5 = **6**.
b. 6 − 2 = **4**.
c. 4 − 1 = **3** squares from the start.
d. 4 + 3 = **7**.

Answer to Question 13

a. **Cookery** books.
b. Below shelf 2 are shelf 3 and shelf 4: **science and picture** books.
c. Above shelf 3 are shelf 2 and shelf 1: **story and cookery** books.
d. Between shelf 2 and shelf 4 is shelf 3: **science** books.

Answer to Question 14

a. Read the dance and count each turn: one after the first clap and one after the second clap. That is **2** quarter turns.
b. Two quarter turns in the same direction make a **half turn**.
c. The dance has 3 claps. Doing it twice gives 3 + 3 = **6** claps.
d. Each dance has 2 quarter turns, so twice is 2 + 2 = **4** quarter turns. That is a **whole turn**, so the dancers face the front again.

Answer to Question 15

a. A, B, C, D: he is in column **D**.

b. Row 1 then 2 then 3: he is in row **3**.
c. **D3**.
d. **Nothing** (D3 is empty). The treasure S is at E4.

Answer to Question 16

a. 5 steps forwards from the gate.
b. The friend faces **back towards the gate**.
c. 5 steps back: $5 - 5 = 0$. The friend is **back at the gate**.
d. The friend is **at the gate** again.

Answer to Question 17

a. The question tells us Ben is in **lane 2**.
b. The lanes between 2 and 5 are lane 3 and lane 4, so Dee could be in **lane 3 or lane 4**.
c. Count the lanes in the middle, not Ben's or Mia's: lane 3 and lane 4. That is **2** lanes.
d. Moving left means going to smaller lane numbers. From lane 5 go back 2: 4, 3. Mia is now in **lane 3**.

Answer to Question 18

a. Sid starts at 0 and jumps 7 forwards: $0 + 7 =$ **7**.
b. Sue starts at 3 and jumps 5 forwards: 4, 5, 6, 7, 8. Sue finishes at **8**.
c. Sam starts at 10 and goes 4 backwards: 9, 8, 7, 6. Sam finishes at **6**.
d. On a number line the biggest number is furthest to the right. 8 is bigger than 7 and 6, so **Sue** is furthest right.

Answer to Question 19

a. → → → is **3** moves right.
b. ↑ ↑ ↑ is **3** moves up.
c. Start A1. 3 right is D. 3 up is row 4. You finish at **D4**.
d. The treasure is at E4, not D4. **No**. You need 1 more move right.

Answer to Question 20

a. 1 + 1 = 2 quarters, a **half turn**.
b. 2 + 2 = 4 quarters, a **whole turn**.
c. A whole turn is back where she started. She faces the **front**.

d. She is already facing the front. **No more turn** is needed (or another whole turn).