Test answers - Angles and lines

Year: Year 3 · Duration: 30 minutes · /20

Answer to Question 1 (4 marks)

a. A full turn goes all the way round, which is a quarter turn done 4 times. So **4** right angles make a full turn. (1 mark)
b. A half turn is 2 quarter turns, so it is **2** right angles. (1 mark)
c. The minute hand moves clockwise from 12 to 9, passing 3 and 6. That is 3 quarter turns: a **three-quarter turn clockwise**. (1 mark)
d. The hands of a clock always move clockwise, so a turn that follows them is **clockwise**, whatever its size. (1 mark)

Answer to Question 2 (4 marks)

a. The corner of a sheet of paper is a square corner, so angle A is **a right angle**. (1 mark)
b. An angle smaller than a right angle is called an **acute** angle. (1 mark)
c. An angle bigger than a right angle but smaller than a half turn (2 right angles) is called an **obtuse** angle. (1 mark)
d. Any correct object gets the mark, for example **the corner of a table**, a book, a window frame or a whiteboard, because each has a square corner. (1 mark)

Answer to Question 3 (4 marks)

a. A line that goes straight up and down is **vertical**, like a flagpole. (1 mark)
b. A line that is level like the horizon is **horizontal**, like the surface of still water. (1 mark)
c. Two lines that meet at a right angle are **perpendicular**, like the edges at the corner of a book. (1 mark)
d. Two lines that are always the same distance apart and never meet are **parallel**, like railway lines. (1 mark)

Answer to Question 4 (4 marks)

a. A rectangle has a square corner at each of its 4 corners, so it has **4** right angles. (1 mark)
b. The two long sides are parallel and the two short sides are parallel: **2** pairs. (1 mark)
c. Any **long side and short side that meet at a corner** are perpendicular, because they meet at a right angle. Two long sides are never perpendicular, as

they are parallel. (2 marks: 1 for a long and a short side, 1 for meeting at a corner)

Answer to Question 5 (4 marks)

a. The car turns once at each corner of the rectangle, and there are 4 corners, so it makes **4** right-angle turns. (1 mark)
b. 4 quarter turns add up to **4 right angles**, which is **a full turn**. (1 mark)
c. **No.** The car did turn: it turned 4 right angles, a full turn. A full turn brings it back to face the way it started, so it only looks as if it did not turn. (1 mark)
d. The long sides make one pair of parallel sides and the short sides make another, so the carpet has **2** pairs. (1 mark)