Worked answers | Integers

Number lines and directed change

6 questions | 13 marks

Equivalent correct methods earn the corresponding marks.

1. Start at −3 and move 5 units right. Find the finish. [2 marks]

Three units reach zero.

Two more units reach 2.

Answer: 2

2. Start at 6 and move 10 units left. Find the finish. [2 marks]

Six units reach zero.

Four more units reach −4.

Answer: −4

3. Find the signed change from −7 to −2. [2 marks]

−2 is five units right of −7.

Right is the positive direction.

Answer: +5

4. A move of 6 units left ends at −1. Where did it start? [2 marks]

Undo the move by travelling 6 units right from −1.

The start was 5.

Answer: 5

5. Find the distance between −2 and 3. [2 marks]

Two units reach zero.

Three further units reach 3.

$2 + 3 = 5$.

Answer: 5 units

6. Start at −8 and move 11 units right. Give the finish and the signed change. [3 marks]

Eight units right reach zero; three more reach 3.

The entire movement was +11.

Answer: Finish 3; change +11.