Year 8 Bearings and Transformations – Foundation

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Answers and worked solutions · 10 questions

A. Bearing and coordinate skills

1. **217°**

Bearings are measured clockwise from north, with three figures
South is 180°; B is 37° past south
180 + 37 = 217°

2. **146°**

Bearings are measured clockwise from north, with three figures
South is 180°; B is 34° before south
180 − 34 = 146°

3. **260°**

The back bearing differs by 180°: 80 + 180 = 260°

4. **230°**

The back bearing differs by 180°: 50 + 180 = 230°

5. **(2.5, 1.5)**

((7 + −2) ÷ 2, (0 + 3) ÷ 2) = (2.5, 1.5)

6. **(1.5, 3.5)**

((−3 + 6) ÷ 2, (1 + 6) ÷ 2) = (1.5, 3.5)

7. **(0, −1.5)**

((−5 + 5) ÷ 2, (1 + −4) ÷ 2) = (0, −1.5)

8. **(−6, −3)**

Changes in x and y: −10 − (−4) = −6, −2 − (1) = −3

9. **(−7, −3)**

Add the vector: (−2 + (−5), 0 + (−3)) = (−7, −3)

10. **(−10, 1)**

Add the vector: (−6 + (−4), −2 + 3) = (−10, 1)