Year 9 Bearings and Transformations – Foundation

ANSWER KEY HappyKids.fit

Answers and worked solutions · 10 questions

A. Bearing, map and coordinate skills

1. 032°

The back bearing differs by 180°: 212 − 180 = 032°

2. 270°; opposite 090°

Bearings are measured clockwise from north
West = 270°
Opposite: 270 − 180 = 090°

3. 8 m by 7 m

Multiply by 50: 16 × 50 = 800 cm and 14 × 50 = 700 cm
In metres: 8 m by 7 m

4. 16 m by 20 m

Multiply by 200: 8 × 200 = 1600 cm and 10 × 200 = 2000 cm
In metres: 16 m by 20 m

5. 8 cm

16 km = 1 600 000 cm
1 600 000 ÷ 200 000 = 8 cm

6. (−2, 6)

From A to M: x changes by −4, y by 6
Do the same again from M: B = (−2, 6)

7. (−7, −13)

From A to M: x changes by −4, y by −9
Do the same again from M: B = (−7, −13)

8. (4, −7)

From A to B: x changes by 6, y by −3
One third: 2 and −1
P = (4, −7)

9. (−2, 1)

AP is 3/8 of AB
AB: x changes by −8, y by −8
3/8 of these: −3 and −3, so P = (−2, 1)

10. 11.6 m

5.8 × 200 = 1160 cm
1160 cm = 11.6 m