

1 Describing motion and reading graphs

— Part 1 — Answers

Answers

Work through these after you have tried the questions yourself.

2.1 (a) distance = $6 + 2 = 8$ km. \ (b) displacement = $6 - 2 = 4$ km north.

2.2 (a) scalar \ (b) vector \ (c) scalar \ (d) vector.

2.3 average speed = $\frac{200}{25} = 8$ m/s.

2.4 the object moves at 8 m/s in the **negative** direction (the sign gives direction, not slowness).

2.5 $a = \frac{20 - 5}{6} = \frac{15}{6} = 2.5$ m/s².

2.6 displacement = area = $12 \times 8 = 96$ m.

2.7 (a) the object is at rest (position not changing). \ (b) the object moves at constant velocity.