3

wage (€)

(12, 256)

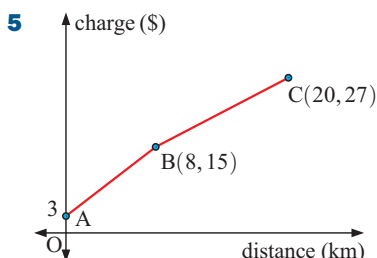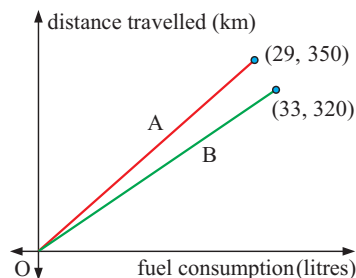(4, 112)   (7, 166)

40

O   5   10   15   hours

The graph alongside indicates the wages paid to security guards.

  a What does the intercept on the vertical axis mean?

  b Find the gradient of the line. What does this gradient mean?

  c Determine the wage for working:
   i 6 hours   **ii** 15 hours.

  d If no payment is made for not working, but the same payment shown in the graph is made for 8 hours' work, what is the new rate of pay?

4 The graphs alongside indicate the fuel consumption and distance travelled at speeds of 60 km/h (graph A) and 90 km/h (graph B).

  a Find the gradient of each line.

  b What do these gradients mean?

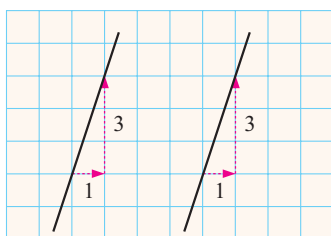 **c** If fuel costs $1.40 per litre, how much more would it cost to travel 1000 km at 90 km/h compared with 60 km/h?

distance travelled (km)

(29, 350)

A

(33, 320)

B

O   fuel consumption (litres)

5

charge ($)

C(20, 27)

B(8, 15)

3   A

O   distance (km)

The graph alongside indicates the courier charge for different distances travelled.

  a What does the value at A indicate?

  b Find the gradients of the line segements AB and BC. What do these gradients indicate?

  c If a straight line segment was drawn from A to C, find its gradient. What would this gradient mean?

E   GRADIENT OF PARALLEL AND PERPENDICULAR LINES   [7.5]

PARALLEL LINES

Notice that the given lines are parallel and both of them have a gradient of 3.

In fact:

- if two lines are **parallel**, then they have **equal gradient**, and
- if two lines have **equal gradient**, then they are **parallel**.