

8 Solve.

(a)  $\frac{x}{4} + 3 = 11$

(a) .....[2]

(b)  $5x - 7 = 3x$

(b) .....[3]

5

[Turn over]



- 9 (a) A service station kept this record of the amounts of fuel bought by its last 50 customers.

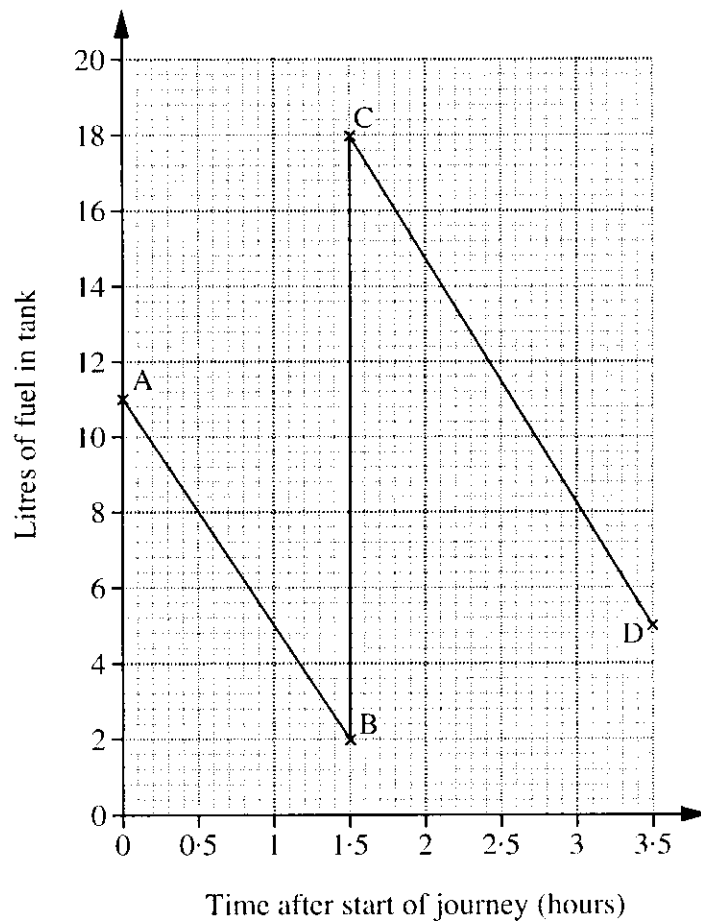
Fuel ( $L$ litres)	Number of customers
$0 < L \leq 10$	1
$10 < L \leq 20$	3
$20 < L \leq 30$	7
$30 < L \leq 40$	24
$40 < L \leq 50$	8
$50 < L \leq 60$	5
$60 < L \leq 70$	2

Calculate an estimate of the mean amount of fuel bought.

(a) .....litres [4]



(b) This graph shows the amount of fuel in Mike's car tank during a journey.



(i) Calculate the gradient of line AB.

(b)(i) .....[2]

(ii) What does section BC of the graph represent?

.....[1]



- 10 (a) Tim and Shula bought a car for £5000.  
Tim paid £3500 and Shula paid £1500.

Write the ratio 3500 : 1500 as simply as possible.

(a) ..... : ..... [2]

- (b) Tim, Shula and Carol share the running costs  
of the car in the ratio 1 : 2 : 3.  
Last year it cost £1860 to run the car.

How much did Carol pay?

(b) £ ..... [2]

- (c) On a journey, Carol drove the first 90 miles.  
Her average speed was 60 mph.

- (i) For how long did Carol drive?

(c)(i) .....hours [2]

- (ii) Tim drove the remaining 85 miles in 2 hours.

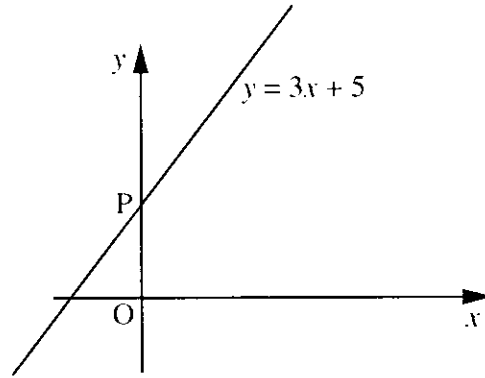
Calculate the average speed for their **whole** journey.

(ii) .....mph [2]

8	
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11



- (a) The line  $y = 3x + 5$  crosses the  $y$  axis at P.

What is the value of  $y$  at P?

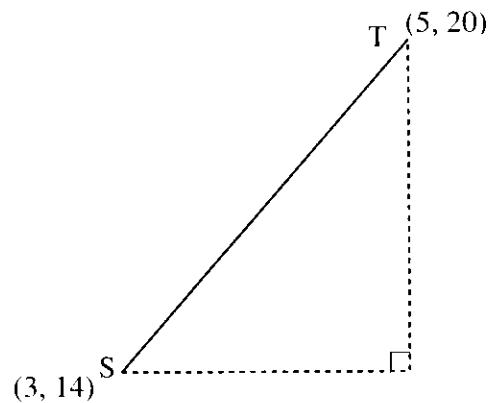
(a) .....[1]

- (b) Write down the equation of another line which is parallel to  $y = 3x + 5$ .

(b) .....[1]

- (c) S(3, 14) and T(5, 20) are two points.

Calculate the length ST.  
Show your method clearly.



Not to  
scale

(c) .....[3]

5

