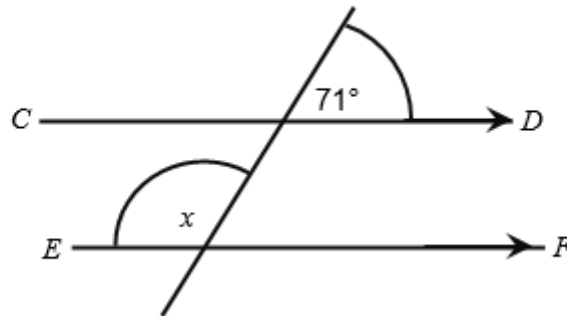




FA Problem Solving Questions - Set 6b

51b.

CD is parallel to EF



Not drawn accurately

Work out the value of x
Give reasons for your answer.

[3 marks]

52b. The diagram shows a wall in Vicky's living room.



Diagram **NOT**
accurately drawn

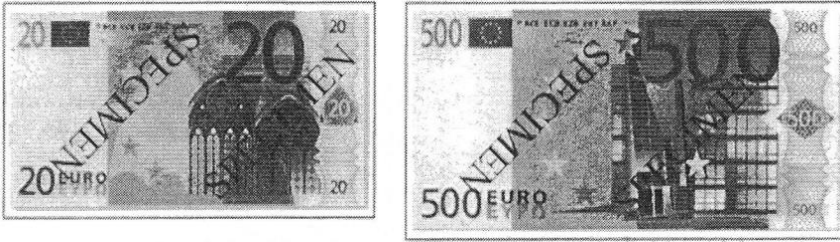
Vicky plans to wallpaper this wall.
She buys some rolls of wallpaper.

Each roll of wallpaper is 47 cm wide and 10 m long.
The cost of one roll of wallpaper is £12.25

Work out the cost of wallpapering the wall.

(5 marks)

53b.



Pictures **NOT**
accurately drawn

A 20 Euro note is a rectangle 133 mm long and 72 mm wide.

A 500 Euro Note is a rectangle 165 mm long.

Calculate the width of the 500 Euro note if the two rectangles are mathematically similar.

(3 marks)

54b. Mrs Collins is organising a school trip.

200 students are going on the trip.

The ratio of the number of staff to the number of students must be 1 : 15

Mrs Collins books coaches for the trip.

Each coach has 42 seats.

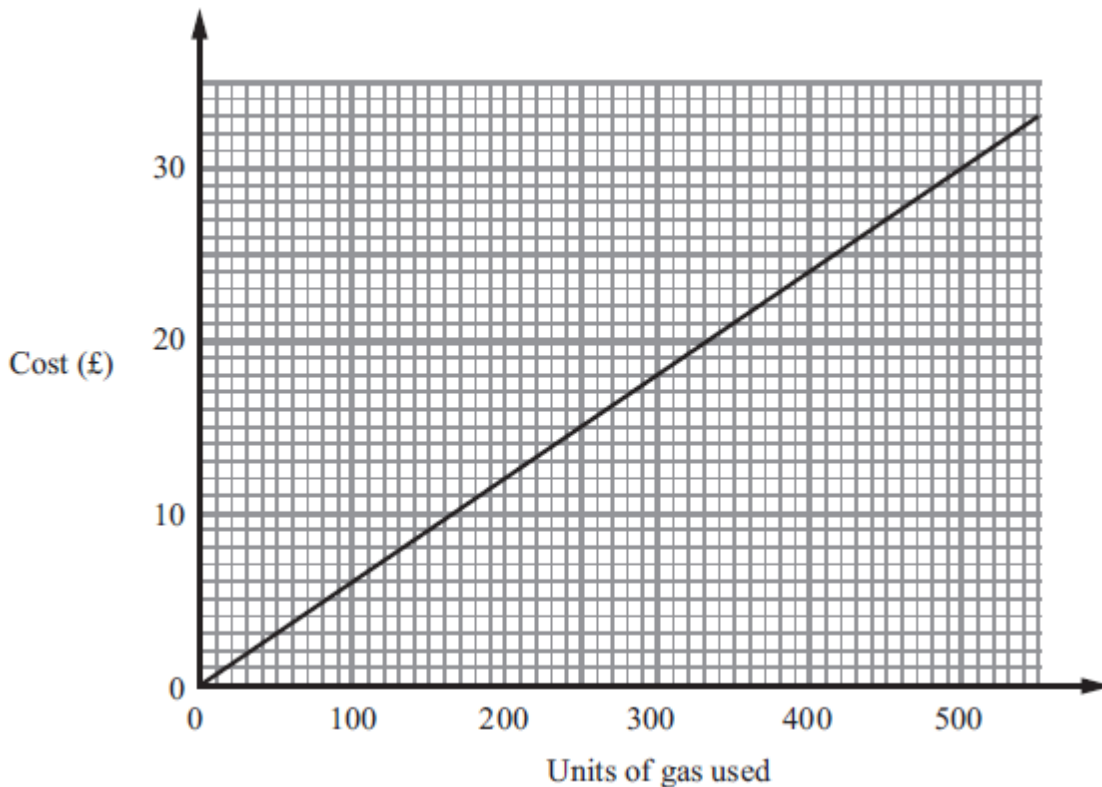
How many coaches does she need to book?

You must show all your working.

(4 marks)

55b. A gas company charges the same amount for each unit of gas used.

Karen uses the graph to work out the cost of the gas she has used.



- (a) Use the graph to write down how many units of gas she can use for £28, (2)
- (b) Work out the cost of 1100 units of gas. (2)

56b. Anna, Bob and Carl share some sweets in the ratio 2:5:4

- (a) If there are 88 sweets in total then how many does Bob get? (2 marks)
- (b) What percentage of the sweets does Anna get? (2 marks)
- (c) If Bob gets 36 sweets more than Anna then how many sweets does Carl get? (2 marks)
- (d) If Bob gets 60 sweets then how many does Carl get? (2 marks)

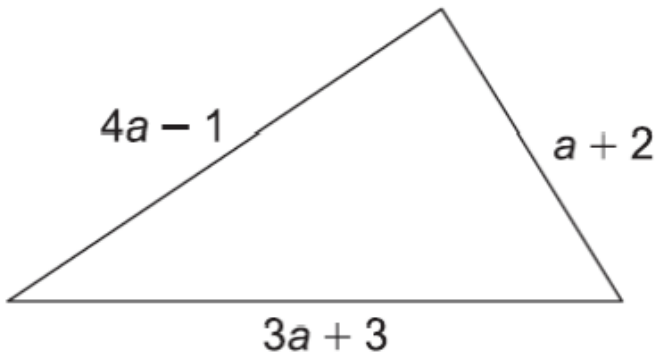
57b. Which of these two Packs of Carrots is the best value for money?

- 1.2 kg bag for £1
Or a 700g bag for £0.77?

You must show all of your working

(3 marks)

58b. The perimeter of the triangle is the same length as the perimeter of the square.



Find an expression for the length of one side of the square in terms of a .

Give your answer in its simplest form.

(3 marks)

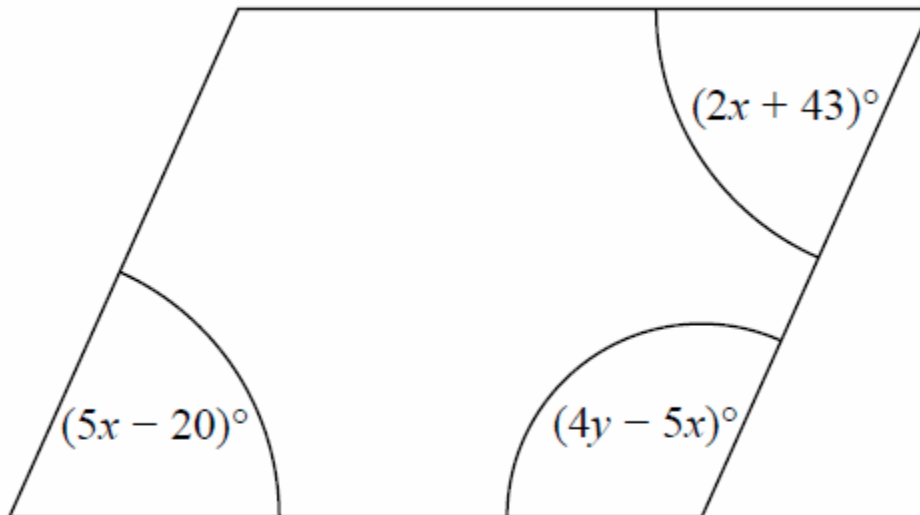
59b. Chris walked 2.6 km at an average speed of 1.4 m/s.

(a) How long did it take him?

(b) If he wanted to complete the walk in 30 mins, what speed should he walk at?

(4 marks)

60b. The shape below is a parallelogram



Work out the values of x and y .

(4 marks)