

Write your name here

Surname

Other names

Edexcel
Functional Skills

Centre Number

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Candidate Number

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Mathematics

Level 1



22–26 July 2013

Time: 1 hour 30 minutes

Paper Reference

FSM01/01

You must have:

Pen, calculator, HB pencil, eraser, ruler graduated in cm and mm, protractor, compasses.

Total Marks

--

My signature confirms that I will not discuss the content of the test with anyone until the end of the 5 day test window.

Signature: _____

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Sign the declaration.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**

Information

- The total mark for this paper is 48.
- The marks for each question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- **Where you see this sign you must show clearly how you get your answers because marks will be awarded for your working out.**
- **Check your working and your answers at each stage.**



Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.

Turn over ►

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PEARSON

SECTION A: Saving and spending

Answer all questions in this section.

Write your answers in the spaces provided.

- 1** Brad does a paper round.
He earns £16 every week.

Brad saves his money to buy a games console that costs £120
He thinks he will need to save all the money he earns for 9 weeks.

- (a) Is Brad correct?
Show why you think this.

(3)

Use the box below to show clearly how you get your answer.



A large empty rectangular box for writing the answer.



Brad wants to spend some of the money he earns each week.

His father says

Save 75% of the £16 each week
and I will give you the same amount as you save.

Brad wants to take the money from his father.

(b) How much does Brad need to save each week?
Show how you check your answer.

(3)

Use the box below to show clearly how you get your answer.



Large empty box for showing the solution to the problem.

Use the box below to show how you check your answer.

Empty box for showing the check of the answer.

(Total for Question 1 is 6 marks)



- 2 Brad finds two online stores that sell a game he wants.
He wants to sell his old game.

Brad makes these notes about the prices.

Buy Games
£19.94
plus £2.03 delivery
Sell the old game for £1.40

Games Store
£21.99
free delivery
Sell the old game for £0.60

(a) Which online store is best for Brad?

(3)

Use the box below to show clearly how you get your answer.



A large empty rectangular box for writing the answer.



Brad goes into town on Saturday.
He arrives at 12:30 pm.

In town he wants to

- meet Assad for lunch (1 hour)
- check the price of a game (half an hour)
- look at DVDs (three quarters of an hour)
- go bowling (1 hour 15 minutes).

Brad wants to leave the bowling alley by 4:30 pm.

(b) Can Brad be ready to leave the bowling alley by 4:30 pm?
Show why you think this.

(4)

Use the box below to show clearly how you get your answer.

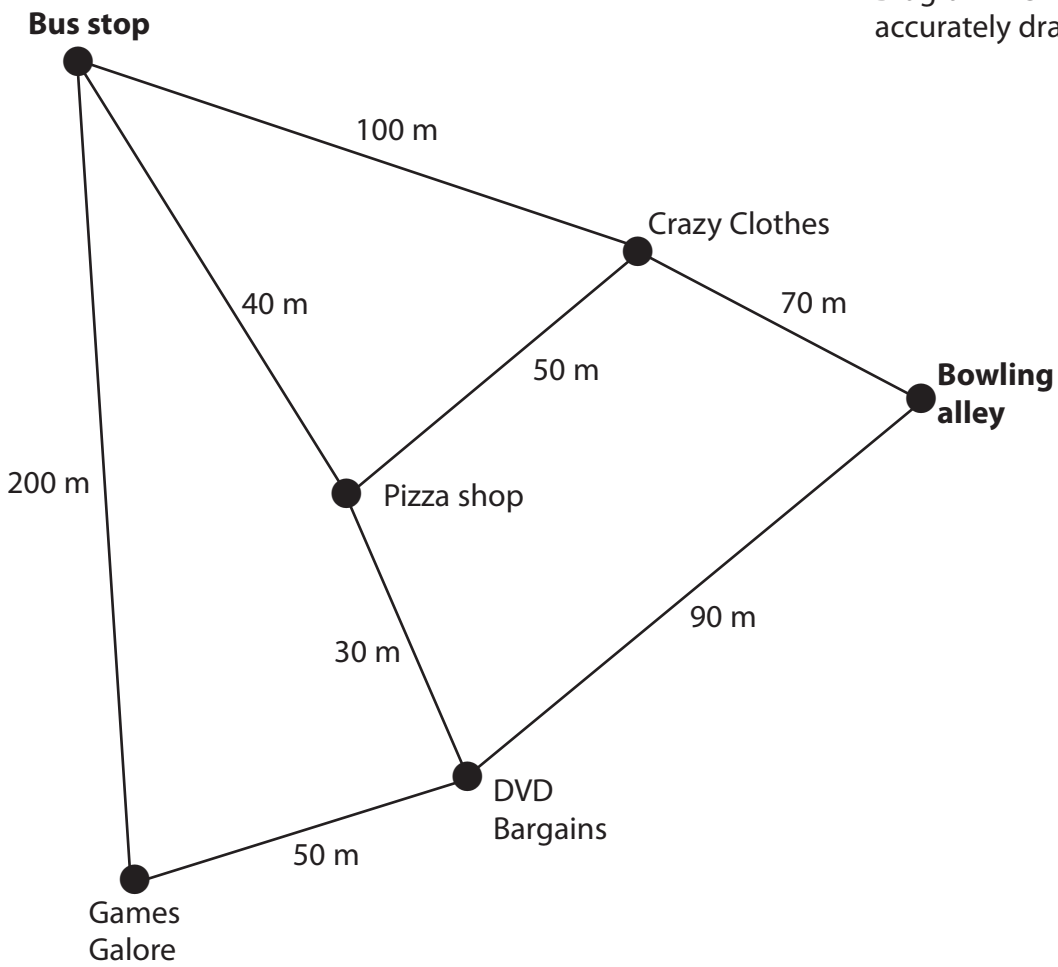


A large empty rectangular box for writing the answer.



Brad has to walk from the bowling alley to the bus stop.
The diagram shows some distances in town.

Diagram **NOT**
accurately drawn



(c) Choose a route from the bowling alley to the bus stop.
Find the total distance of this route.

(2)



Use the box below to show clearly how you get your answer.



Brad knows it takes at least 2 minutes to walk to the bus stop.

The next bus is due to leave in 1 minute.

(d) How likely is Brad to get this bus?

(1)

Write your answer in the box below.

(Total for Question 2 is 10 marks)



SECTION B: Disability sports

Answer all questions in this section.

Write your answers in the spaces provided.

- 3 Jon plays wheelchair basketball.

He plays for the Aces.



The coach wants to improve the team performance.

The table shows the points the Aces scored in the 4 periods of their last game.

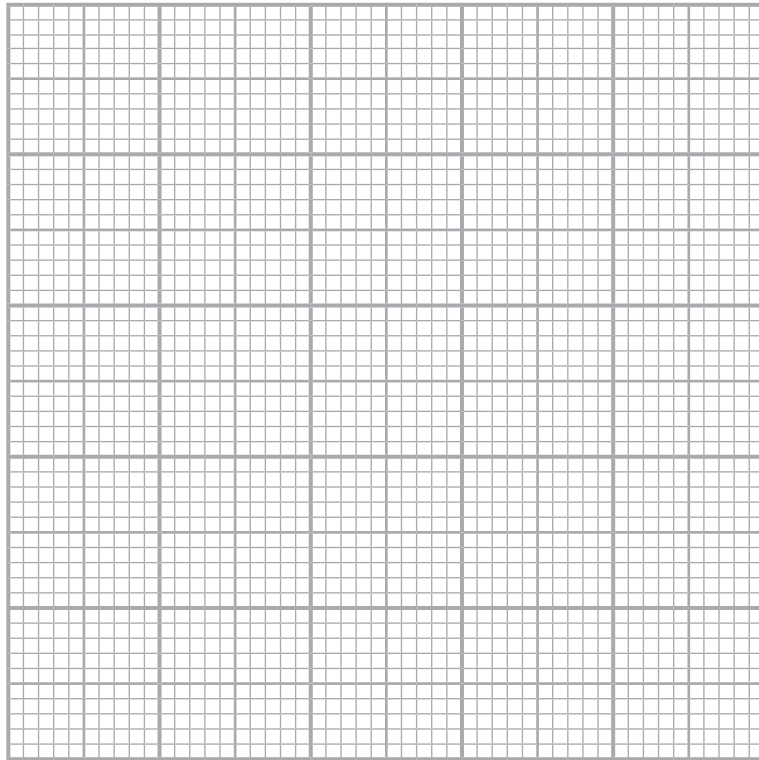
Points scored			
period 1	period 2	period 3	period 4
16	14	13	6

The coach wants a graph or chart to show the team performance.

- (a) Draw a graph or chart for the coach.

(3)





(b) Write a comment on the team performance in this game. (1)

Write your comment in the box below.

A large, empty rounded rectangular box provided for writing a comment on the team performance.



The team captain has a mean average score of 22 points per game.

Jon has scored these points in his last 6 games.

Points scored	23	25	16	14	20	22
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Jon thinks his mean average score is more than 22 points per game.

(c) Is Jon correct?

Show why you think this.

You must show a check of your answer.

(4)

Use the box below to show clearly how you get your answer and to show your check.



(Total for Question 3 is 8 marks)



4 Jon does training for a total of 3 hours a day.
He starts his 3 hours of training with a warm-up and then he does basketball exercises.
The coach tells him the ratio of warm-up to basketball exercises should be 1: 2
Jon does his warm-up for 50 minutes.

(a) Does Jon warm-up for the correct time?
Show why you think this. (3)

Use the box below to show clearly how you get your answer.



On Saturday Jon starts to train at 11.35 am.
He stops for a break at 1.15 pm.

(b) How much time does Jon train before he stops for a break? (1)

Write your answer in the box below.

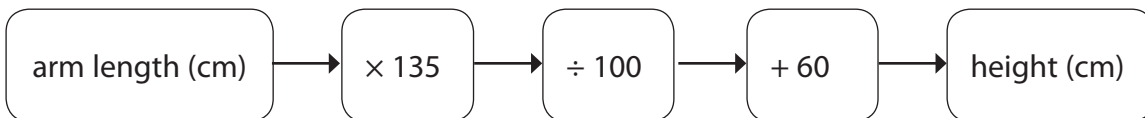
(Total for Question 4 is 4 marks)



- 5 Sofia is a runner.
She wears blades to run.



Sofia uses this rule to work out the height she is allowed to be when she wears her blades.



Sofia knows her arm length is 88 cm.
She thinks her height is allowed to be 177 cm.

- (a) Is Sofia correct?
Show why you think this.

(3)

Use the box below to show clearly how you get your answer.



A large, empty rectangular box with rounded corners, intended for the student to show their calculations and reasoning for the problem.



Sofia has to find the height she is allowed to be using two different methods.

She uses this table to find the height from the length of her forearm.

Forearm length (cm)	Height (metres)
25	1.65
25.5	1.66
26	1.68
26.5	1.69
27	1.70
27.5	1.72
28	1.73
28.5	1.75
29	1.76
29.5	1.77
30	1.79

The length of Sofia's forearm is 28.0 cm.

(b) What height is Sofia allowed to be using the table?

(1)

Write your answer in the box below.

(Total for Question 5 is 4 marks)



SECTION C: Building trades

Answer all questions in this section.

Write your answers in the spaces provided.

- 6 Marta works as a painter and decorator.
She needs to buy 1 roller frame, 2 roller sleeves and 1 roller tray.

Marta finds these prices.

Item	Price
1 roller frame	£3.99
1 roller sleeve	£4.99
1 roller tray	£1.79
pack of 1 roller tray, 1 roller frame and 1 roller sleeve	£7.99

Marta says

'I can save more than £3 if I buy the pack and one extra sleeve.'

- (a) Can Marta save more than £3?
Show why you think this.

(5)



Use the box below to show clearly how you get your answer.



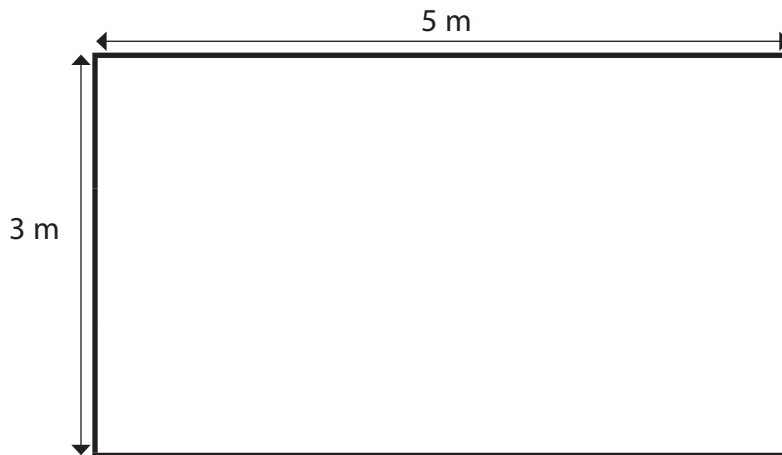
A large, empty rectangular box with rounded corners, intended for the student to show their work.



P 4 2 4 7 2 A 0 1 5 2 0

Marta is going to paint 2 walls that are the same size.

The diagram shows one of these walls.



Marta knows that one tin of paint covers an area of 13 m^2 .

Marta has 3 tins of paint.

(b) Does Marta have enough paint for the 2 walls?

(4)



Use the box below to show clearly how you get your answer.



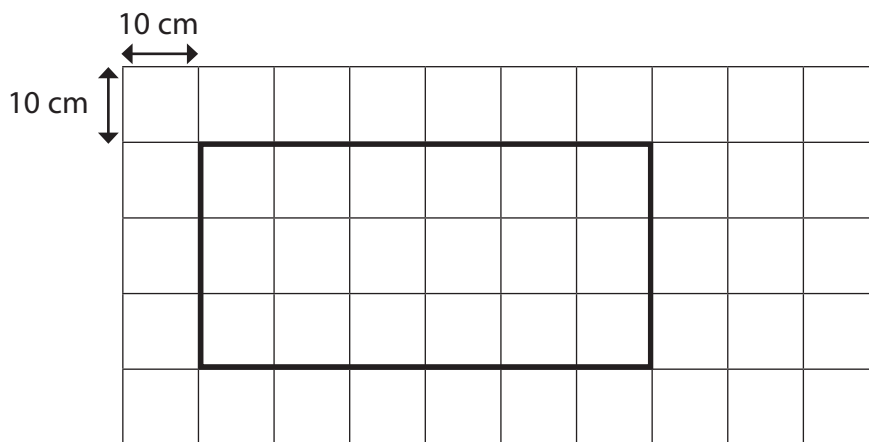
A large, empty rectangular box with rounded corners, intended for the student to show their work.

(Total for Question 6 is 9 marks)



- 7 Josh is learning to make window frames.
He needs to work out how much wood he needs for one window frame.

Josh draws a sketch of the window frame on a grid.



Key: 1 square on the grid is 10 cm by 10 cm on the window frame
—— window frame

Josh has some wood to make the window frame.
The total length of the wood is 220 cm.

Josh says

'I am going to have 40 cm of wood left over when I make the window frame.'

- (a) Is Josh correct?
Show why you think this.

(4)

Use the box below to show clearly how you get your answer.



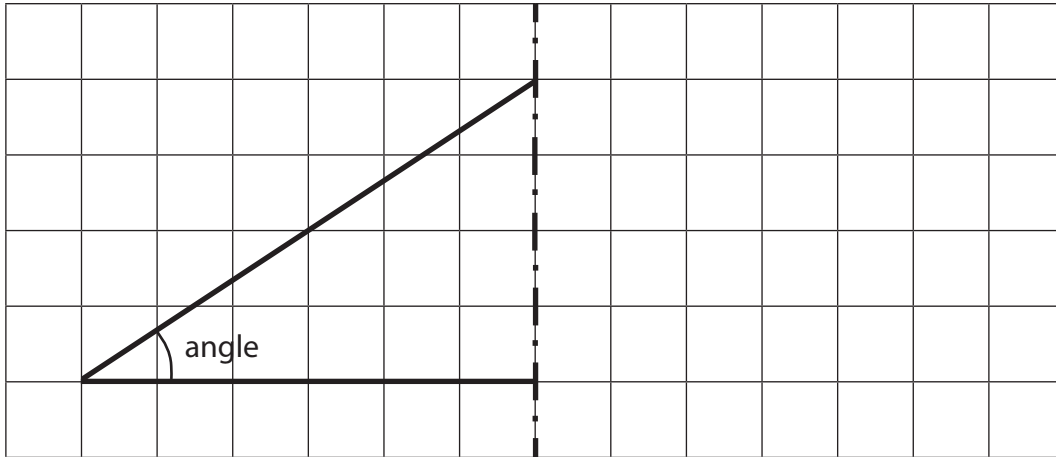
A large empty rectangular box for writing the answer.



Josh designs a roof frame.

He knows this roof frame must be symmetrical.
The centre line is the line of symmetry.

Josh starts to draw the design on a grid.



centre line

(b) Complete the drawing of the roof frame on the grid.

(2)

Josh needs to check the angle the roof frame makes with the horizontal.
He marks this angle on the grid.

(c) Measure the angle for Josh.

(1)

Write your answer in the box below.

(Total for Question 7 is 7 marks)

TOTAL FOR PAPER IS 48 MARKS



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