

MATHEMATICS PRACTICE PAPER
PAPER 2
FOUNDATION TIER

1 hour 30 minutes

(Linear paper - November 2015)

Question	/Topic	Mark	Out of
1	Solving a money problem		10
2	Estimating metric values and drawing a circle		6
3	Naming 2-D and 3-D shapes		4
4	Area by counting squares and symmetry		5
5	Solving a money problem		6
6	Median, mean and range		6
7	Sequences and use of a calculator		10
8	Simplifying and solving a problem that includes scales		8
9	Electricity bill		7
10	Scatter diagram		5
Total			67

1. (a) Toby buys the following items to decorate some rooms in his house. Complete his bill. [4]

Item	Cost
10 rolls of wallpaper at £14.82 each	£ 148.20
4 cartons of wallpaper paste at £7.53 per carton	£
6 tins of emulsion paint at £8.32 each	£
4 tins of gloss paint at £14.54 each	£
Total	£

- (b) Toby gets a 5% discount on his bill. How much does he pay? [3]

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- (c) Toby goes to a cafe and buys a cup of tea, a sandwich and a cake. How much change does he get from £6? [3]

Cafe	
Tea	£1.56
Coffee	£2.35
Sandwich	£2.86
Cake	98p

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2. (a) Circle the quantity that is an appropriate estimate for each of the following. [4]

Height of a door	2 m	20 m	2 mm	2 cm
Weight of a baby	3 g	3 mg	30 kg	3 kg
Volume of tea in a full mug	3 litres	30 cm ³	300 ml	30 ml
Area of a bedroom floor	12 m ²	12 cm ²	12 mm ²	12 cm ³

(b) In the space below:

Draw a circle of radius 6 cm.
Draw a diameter of your circle.

[2]

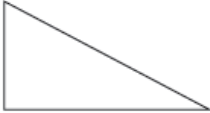
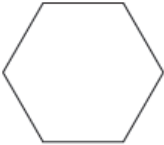
3. Draw a line connecting each of the following words to the correct shape.
The first one has been done for you.

[4]

Cuboid



Isosceles triangle



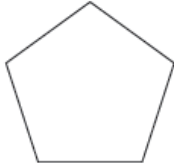
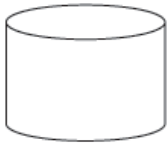
Parallelogram



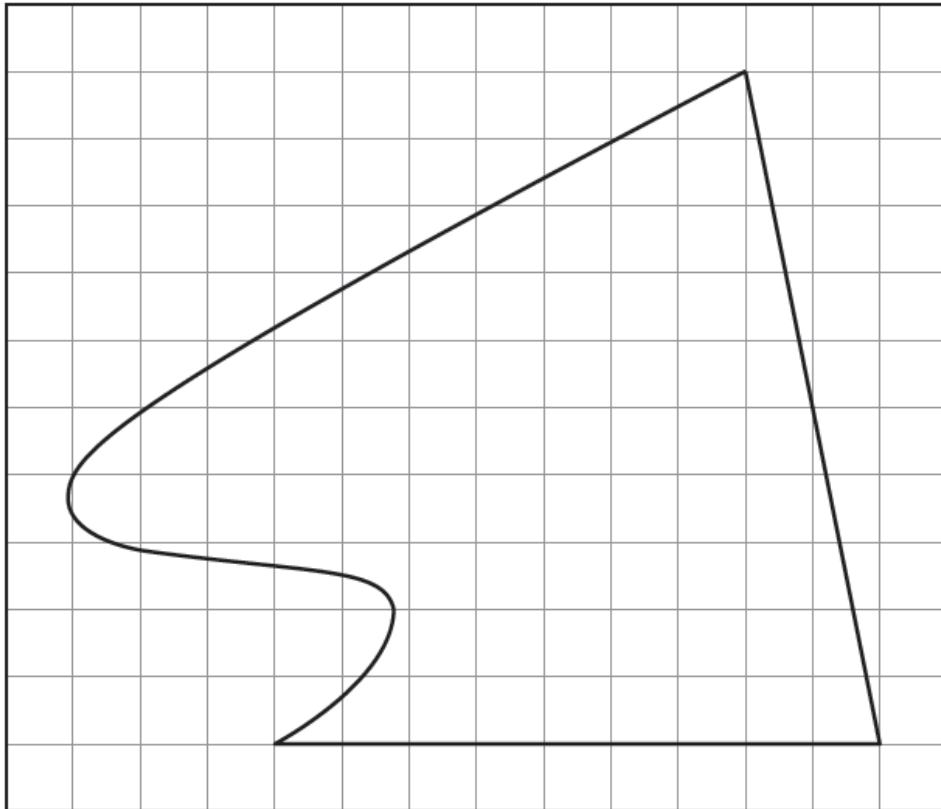
Pentagon



Cylinder



4. (a)



The above shape is the outline of a sheet of cardboard.
It is drawn on a square grid where each square represents 5 cm^2 .
Estimate the area of the surface of the sheet of cardboard.

[3]

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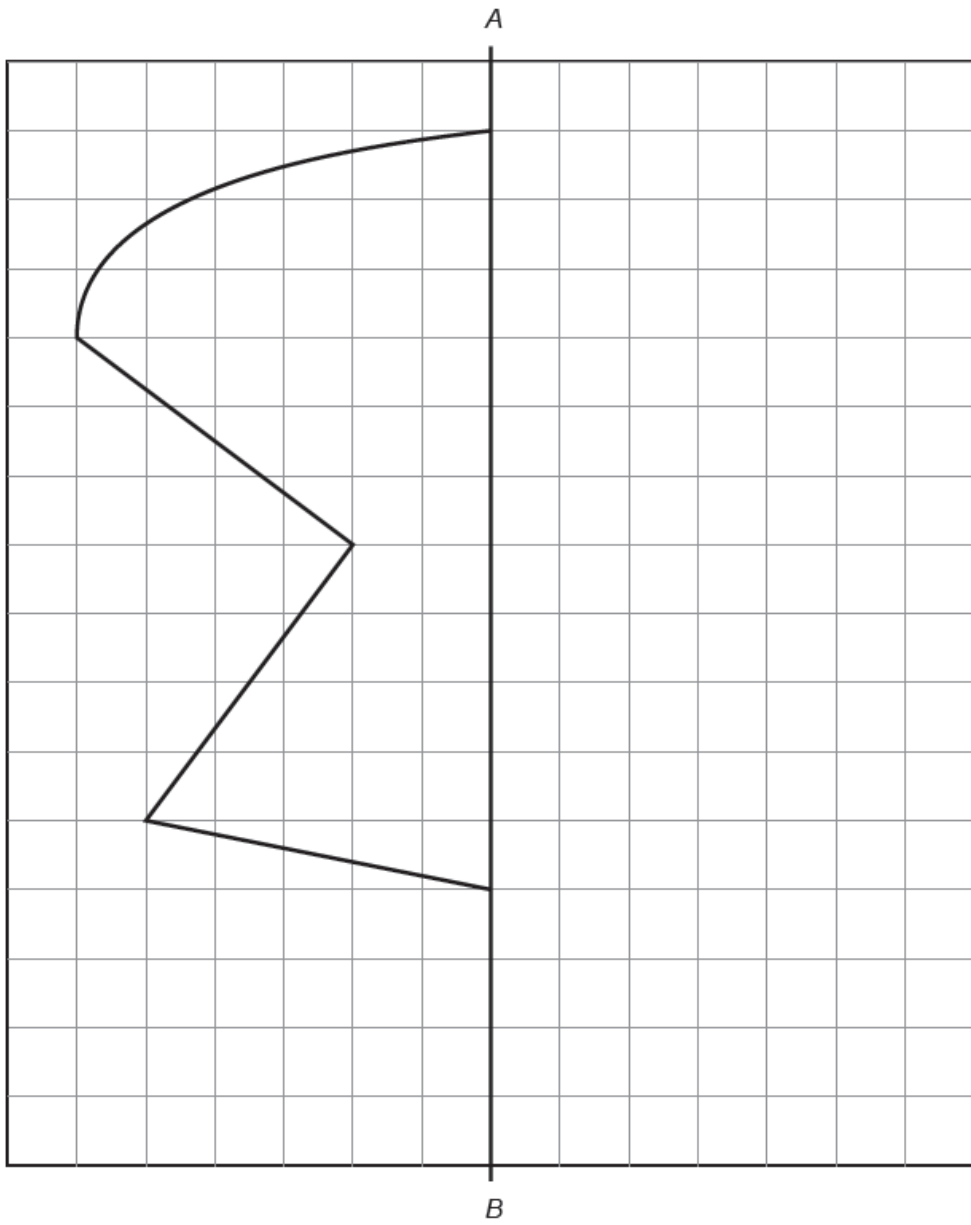
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Area of the surface of the sheet of cardboard = cm^2

(b) Complete the following figure so that it is symmetrical about the line AB .

[2]



5. You will be assessed on the quality of your written communication in this question.

Peter has these nine coins.



He spends £1.78 in a shop.
Peter pays using some of his coins and he is given change.
Including his change, he has exactly four coins left.

List the coins he used to pay and list the coins he had left.

[6]

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Coins he used to pay

Coins he had left

6. The lengths, in cm, of 8 pieces of wood are:

56 45 110 77 87 61 74 36

(a) Find the median of their lengths. [2]

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(b) Find the mean of their lengths. [3]

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(c) Find the range of their lengths. [1]

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7. (a) Describe **in words** the rule for continuing each of the following sequences.

(i) 98 86 74 62 50 [1]

Rule:

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(ii) 1 5 25 125 625 [1]

Rule:

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(b) Find the values of

(i) $\sqrt{144}$ [1]

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(ii) $5 \cdot 2^3$ [1]

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(c) Express 9% as a decimal. [1]

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(d) Chris has £10. He goes into a shop to buy notebooks at 68p each. What is the greatest number of notebooks he can buy and what is his change? [3]

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(e) Calculate $\frac{4}{9}$ of 63. [2]

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8. (a) Simplify $a + 3b + a - 4b$. [2]

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- (b) Rebecca thinks of a number.
She multiplies the number by 4 and subtracts 7 to get 41.
What was her number? [2]

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- (c) An apple and a pear are placed on a scale, as shown in Diagram 1.
Another apple is added to the scale, as shown in Diagram 2.
Both apples have the same weight.
What is the weight of the pear? [4]

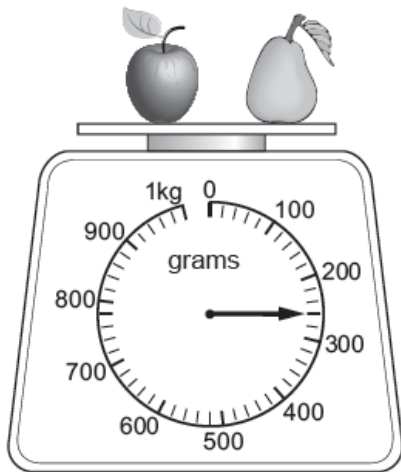


Diagram 1

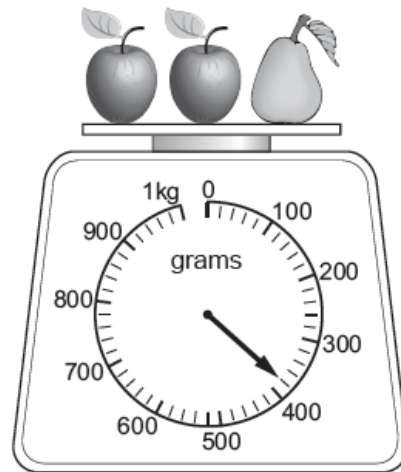


Diagram 2

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9. (a) Mr & Mrs Hughes received an electricity bill. The bill, with some of the entries missing, is shown below. Use the information given on the bill to complete all of the missing entries and calculate the total amount that Mr & Mrs Hughes have to pay. [5]

Power Electricity Company		Bill period 1st July 2015 to 30th September 2015			
Mr & Mrs Hughes 5 Field Close Porth XX2 3YY					
INVOICE					
Meter reading this time	Meter reading previous time	Units used	Price of each unit in pence	Amount	
					£
4703	3425	Units used	18.5p	
		V.A.T. at 5%		
		Total charge including V.A.T.		
		Previous amount owing			12.46
		Amount to pay		

- (b) They wish to pay the bill in 3 equal monthly payments. How much should each of these monthly payments be? Give your answer correct to the nearest penny. [2]

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Space for any extra working:

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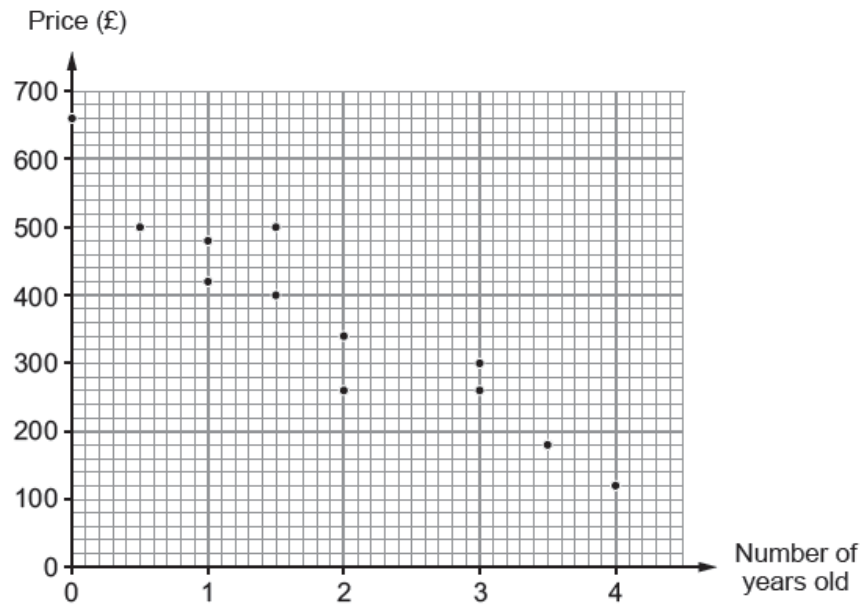
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10. The scatter diagram shows the price and age for each of 12 scooters of the same make and model.



- (a) Write down the price of the new scooter. [1]

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- (b) Write down the price of the oldest scooter. [1]

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- (c) Draw, by eye, a line of best fit on the scatter diagram. [1]

- (d) Write down the type of correlation shown by the scatter diagram. [1]

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- (e) Estimate the price of a $2\frac{1}{2}$ year old scooter of the same make and model. [1]

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