

## Pocklington School 11+ Mathematics 2024 – Sample 2

**1 Hour**

Name	
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- Calculators are not allowed
- Write your answers in the spaces provided
- Show all working in the spaces provided

**Q1.**

Work out  $247 \times 63$

.....  
**(Total for question is 3 marks)**

**Q2.**

At 7 am the temperature was  $-3^{\circ}\text{C}$ .

By noon the temperature was  $11^{\circ}\text{C}$  higher.

(a) Write down the temperature at noon.

..... $^{\circ}\text{C}$   
(1)

At 9 pm the temperature was  $-5^{\circ}\text{C}$ .

By midnight the temperature had gone down by  $7^{\circ}\text{C}$ .

(b) Write down the temperature at midnight.

..... $^{\circ}\text{C}$   
(1)

**(Total for Question is 2 marks)**

**Q3.**

Here are the prices of drinks and snacks in a cafe.

<b>Drinks</b>		<b>Snacks</b>	
tea	50p	cheese roll	£1.20
coffee	60p	samosa	£1.10
lemonade	40p	hot dog	£1.40
		baked potato	£1.60

Barry buys a tea, a hot dog and a cheese roll.

(a) Work out the total cost.

£ .....

(2)

Naomi buys a drink and a snack.

She pays with 3 pound coins.

She gets 80p change.

(b) Which drink and which snack did Naomi buy?

..... and .....

(2)

**Q4.**

(a) Work out  $2 \times (8 - 3)$

.....

(1)

(b) Work out  $3 + 4 \times 5$

.....

(2)

(c) Find the value of  $10 \div 2 - 3$

.....

(1)

**Q5.**

(a) Work out  $\frac{2}{3} - \frac{1}{5}$

.....

(2)

(b) Work out  $\frac{2}{3} \times \frac{3}{4}$

Give your answer as a fraction in its simplest form.

.....  
(2)

**(Total for question is 4 marks)**

**Q6.**

(a) Write 0.21 as a fraction.

.....  
(1)

(b) Write  $\frac{1}{4}$  as a percentage.

.....  
(1)

**(Total for question is 2 marks)**

**Q7.**

Write the following numbers in order of size.

Start with the smallest number.

0.32            0.4            0.35            0.309

.....  
**(Total for Question is 1 mark)**

**Q8.**

Write down the value of the 4 in the number 542.3

.....  
**(Total for Question is 1 mark)**

**Q9.**

(a) Write the number **seven thousand and twenty five** in figures,

.....  
(1)

(b) Write the number 9450 in words.

.....  
(1)

(c) Write the number 28.75 to the nearest whole number.

.....  
(1)

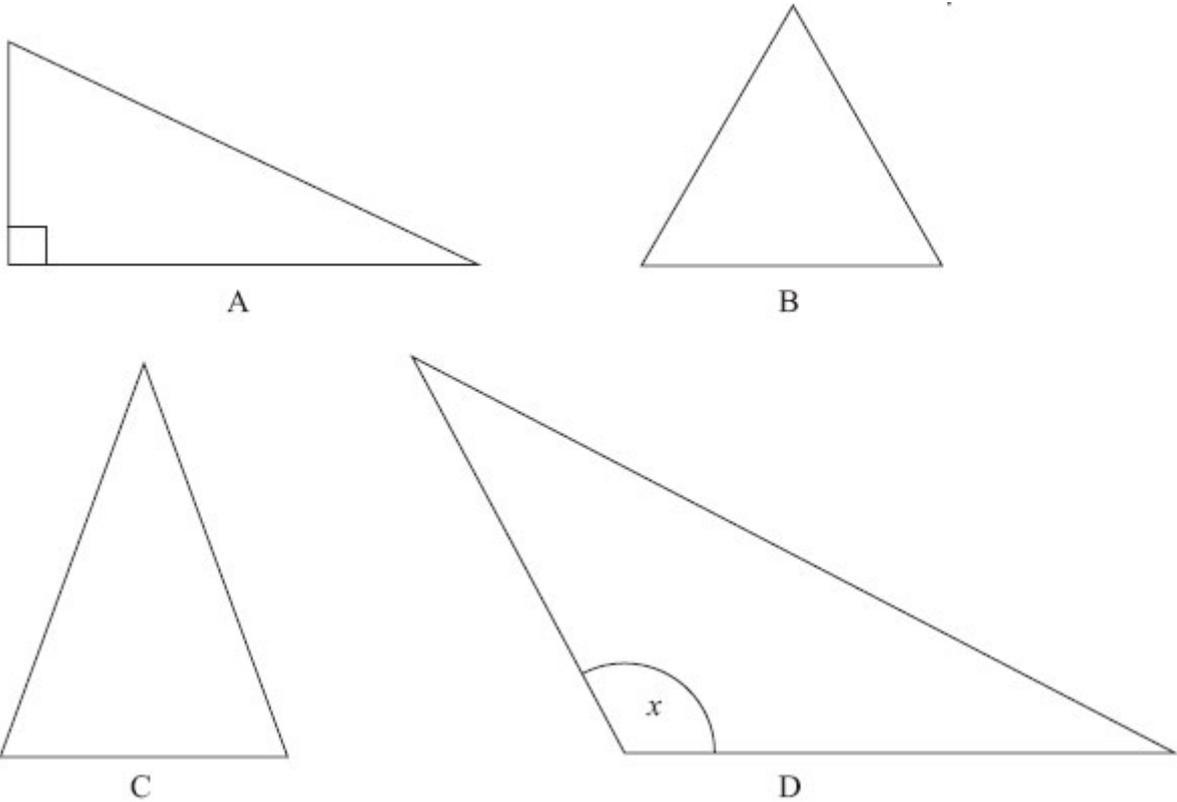
(d) (d)Write the number 7380 to the nearest thousand.

.....  
(1)

**(Total for Question is 4 marks)**

**Q10.**

Here are four triangles.



One of these triangles is an equilateral triangle.

(a) Write down the letter of the equilateral triangle.

.....

(1)

(b) Is the angle  $x$  an ACUTE angle or OBTUSE angle or REFLEX angle?

.....

(1)

(c) Measure the length of the line EF.

Give your answer in centimetres, to the nearest mm.

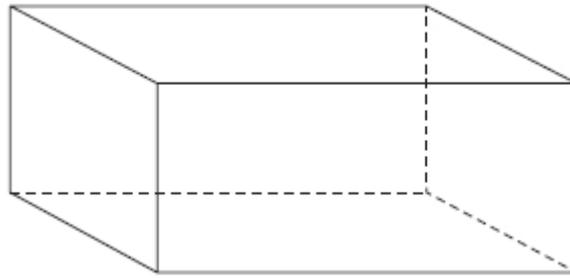


..... cm

(1)

**Q11.**

Here is a 3-D shape.



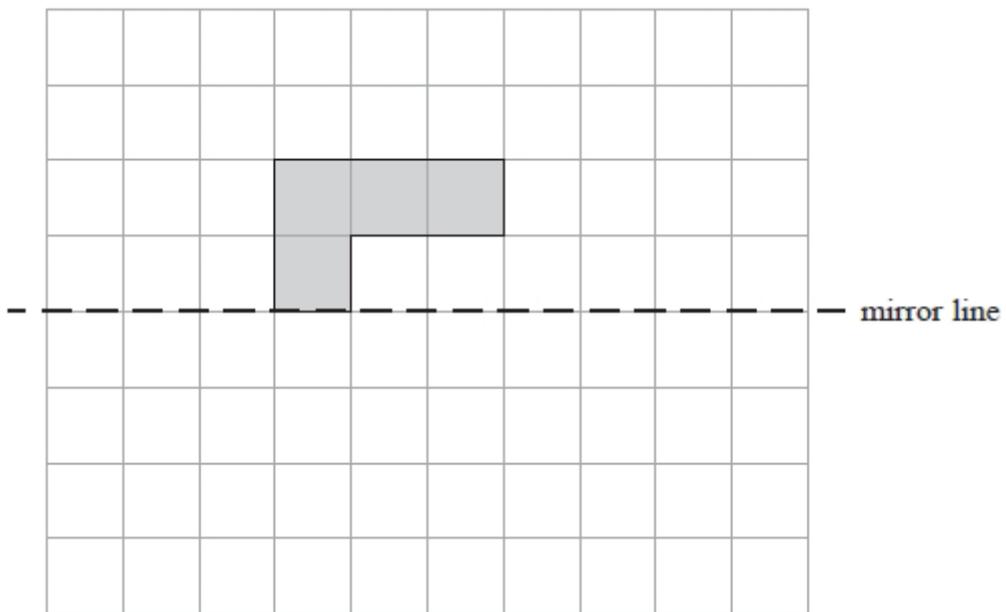
Write down the name of this 3-D shape.

.....

(1)

**Q12.**

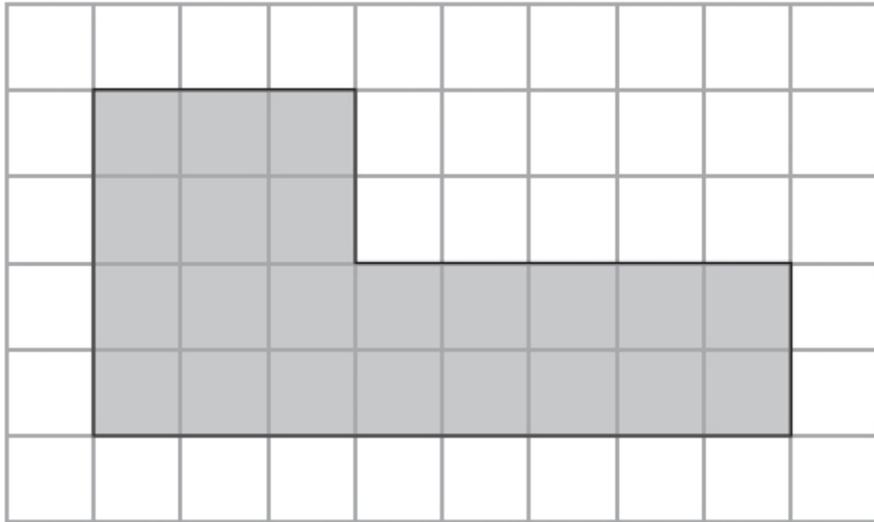
On the grid, reflect the shaded shape in the mirror line.



(Total for Question is 2 marks)

**Q13.**

The shaded shape is drawn on a grid of centimetre squares.



(a) Find the perimeter of the shaded shape.

..... cm  
(1)

(b) Find the area of the shaded shape.

..... cm<sup>2</sup>  
(1)

**(Total for Question is 2 marks)**

**Q14.**

Jayne writes down the following

$$3.4 \times 5.3 = 180.2$$

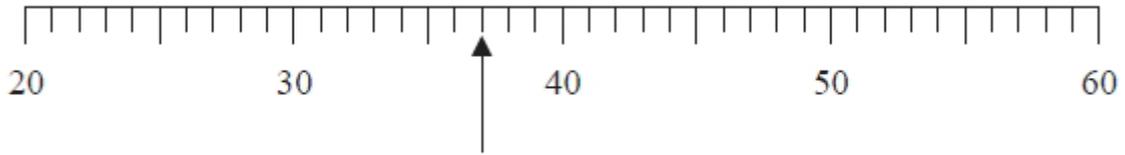
Without doing the exact calculation, explain why Jayne's answer cannot be correct.

.....  
.....

**(Total for question is 1 mark)**

**Q15.**

Write down the number marked with the arrow.



.....  
(1)

**Q16.**

(a) Convert 1900 m to km

.....  
(1)

(b) Convert 54cm to mm

.....  
(1)

**Q17.**

What is the time 2 hours 40 minutes after 8.05 am?

..... am

**(Total for Question is 1 mark)**

**Q18.**

The diagram below represents two towns on a map.

**Diagram  
accurately drawn**

×  
Towey

×  
Worsley

Scale: 1 cm represents 3 kilometres.

Work out the distance, in kilometres, between Towey and Worsley.

..... km  
**(Total for Question is 2 marks)**

**Q19.**

Here is a pictogram.

It shows the number of goals scored by Azeem, by Brad and by Chris.

Azeem	○
Brad	○ ○
Chris	○ ◐
Dean	

**Key**

○ represents 4 goals

(a) Write down the number of goals scored by Brad.

.....  
(1)

(b) Write down the number of goals scored by Chris.

.....  
(1)

Dean scored 6 goals.

(c) Show this information on the pictogram.

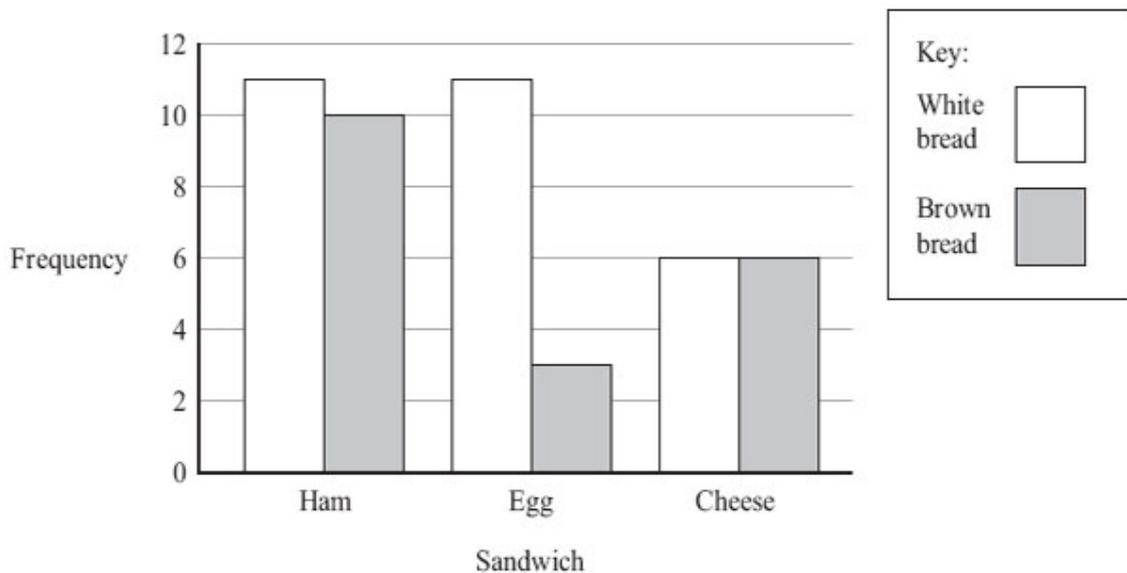
(1)

**(Total for Question is 3 marks)**

**Q20.**

Ann works in a sandwich shop.

The dual bar chart shows information about the sandwiches sold.



(a) Write down the total number of cheese sandwiches sold.

.....  
(1)

More white bread sandwiches were sold than brown bread sandwiches.

(b) Work out how many more white bread sandwiches.

.....

(2)

**(Total for Question is 3 marks)**

**Q21.**

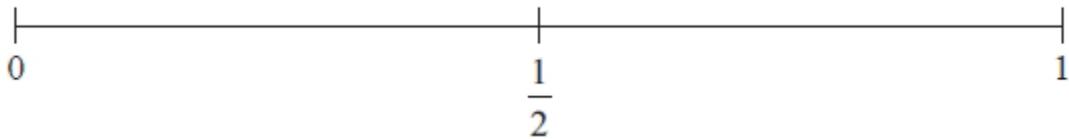
Tara rolls a fair 6-sided dice once.

(a) (i) Circle the word below that best describes the probability of Tara getting a number less than 6

Impossible      unlikely      evens      likely      certain

(1)

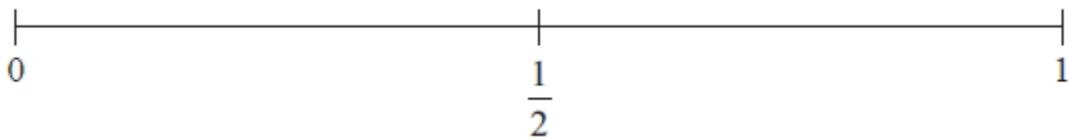
(ii) On the probability scale below, mark with a cross (×) the probability that Tara gets a 10



(1)

Olga throws a fair coin once.

(b) On the probability scale below, mark with a cross (×) the probability that she gets tails.



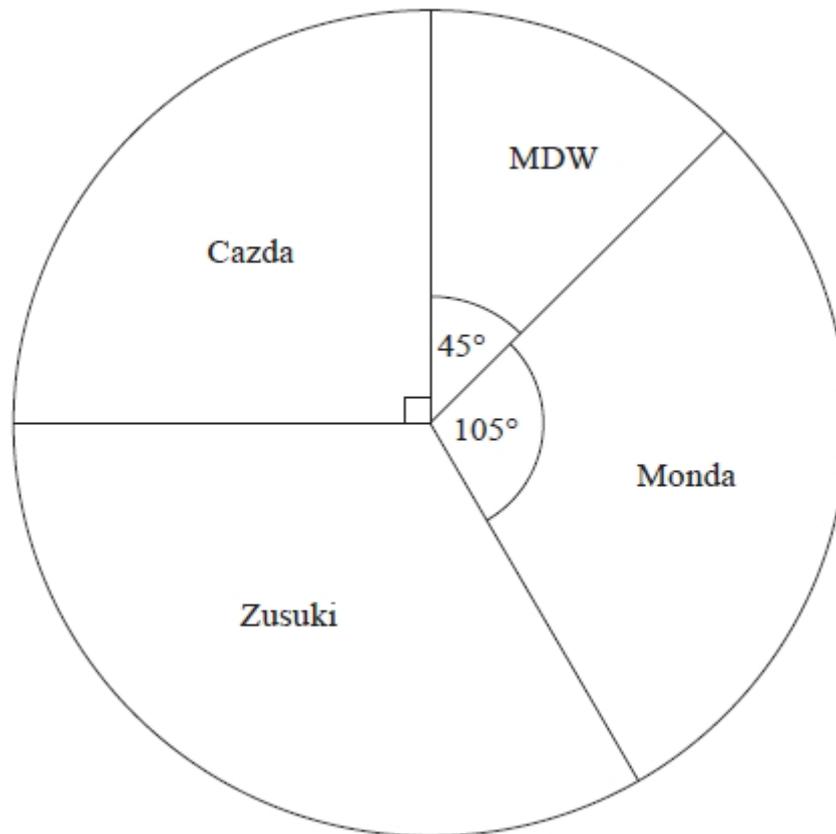
(1)

**(Total for Question is 3 marks)**

**Q22.**

100 drivers are asked which make of car they like best.

The pie chart and table show some information about their answers.



(a) Which was the least popular make of car?

.....  
(1)

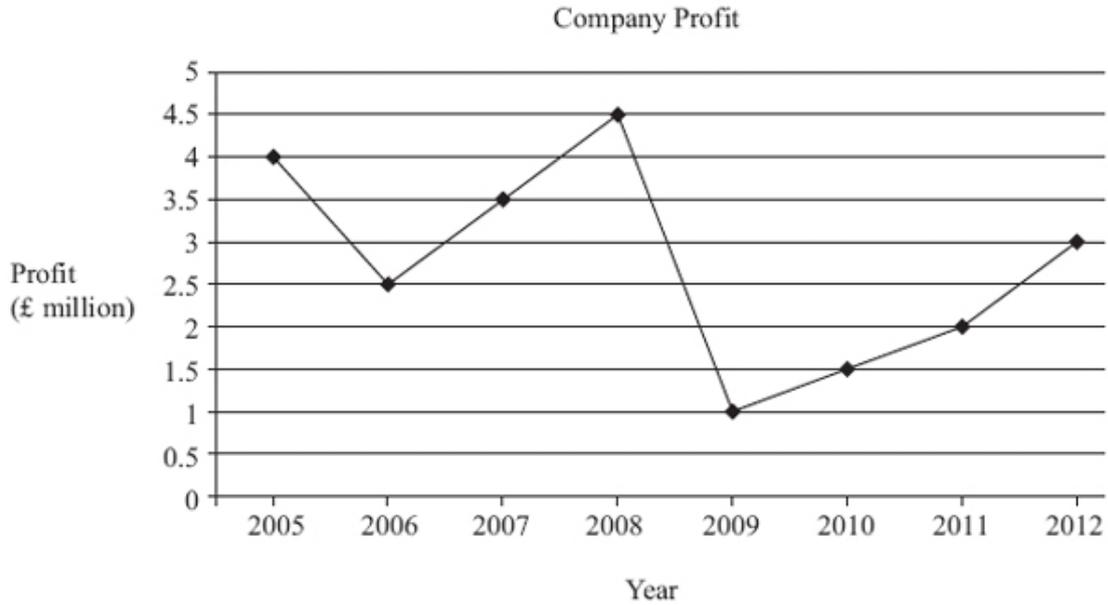
(b) How many drivers liked Cazda best?

.....  
(1)

**(Total for Question is 2 marks)**

**Q23.**

The graph shows information about the profit a company made each year from 2005 to 2012



(a) What was the profit in 2006?

.....  
(1)

(b) In which year did the company make the most profit?

.....  
(1)

(c) Describe the change in profit from 2009 to 2012

.....  
.....  
(1)

**(Total for Question is 3 marks)**

**Q24.**

An equilateral triangle has sides of length 8 cm.

A square has the same perimeter as the triangle.

Work out the area of the square.

.....  
**(Total for Question is 4 marks)**

**Q25.**

(a) Solve  $4x = 20$

$x = \dots\dots\dots$

(1)

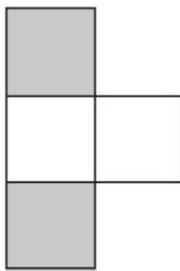
(b) Solve  $y + 5 = 12$

$y = \dots\dots\dots$

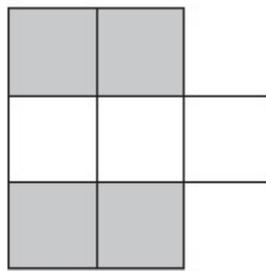
(1)

**Q26.**

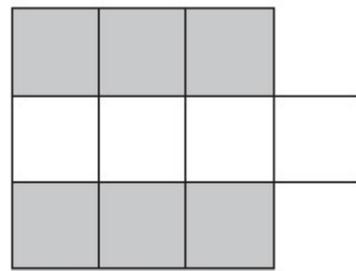
Here are some patterns made from white centimetre squares and grey centimetre squares.



Pattern 1

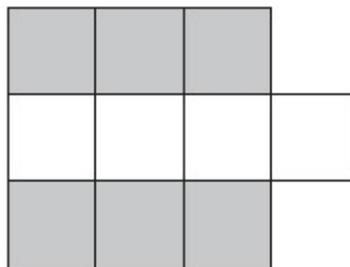


Pattern 2



Pattern 3

(a) In the space below, complete Pattern 4



(1)

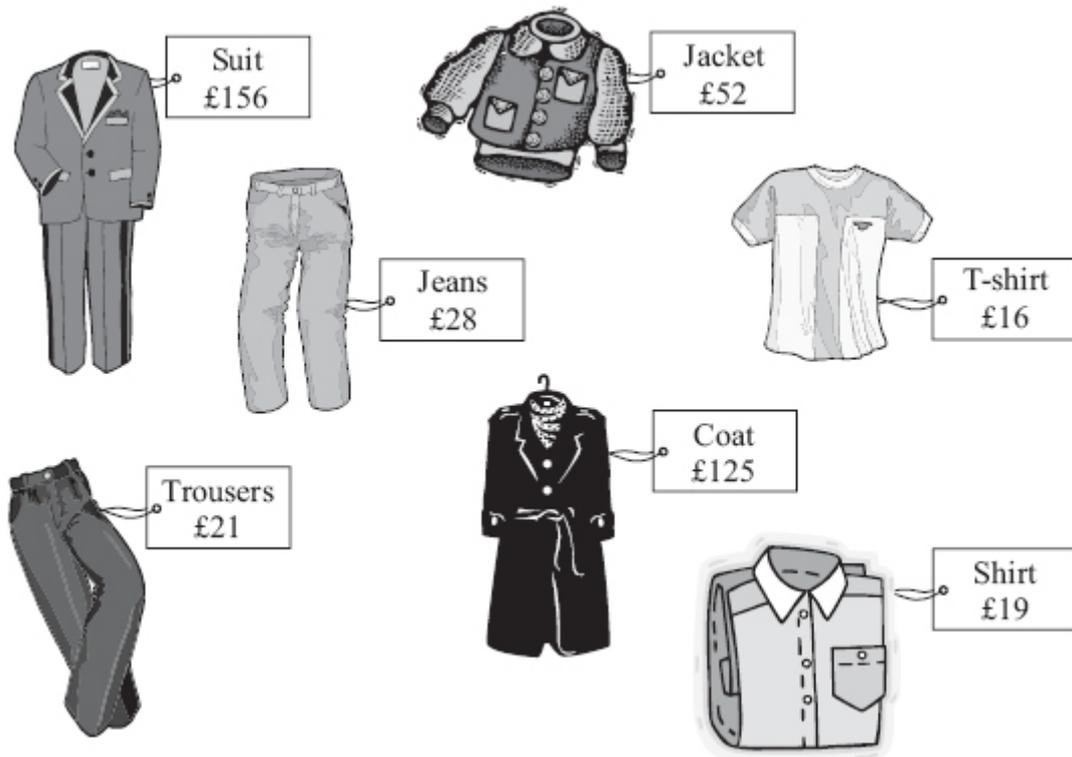
(b) Find the number of grey squares in Pattern 6

$\dots\dots\dots$

(1)

**Q27.**

Kylie and Roxy go shopping.



Kylie buys the coat and the T-shirt.

(a) Work out the total cost.

.....

(2)

Roxy buys two items of clothing.

She pays with £50

She gets £3 change.

(b) Which two items did Roxy buy?

..... and .....

(3)

**(Total for Question is 5 marks)**

**THE QUESTIONS ON THE NEXT PAGES ARE DESIGNED TO BE MORE CHALLENGING AND YOU MAY NOT GET TIME TO FINISH THEM**

**E1.**

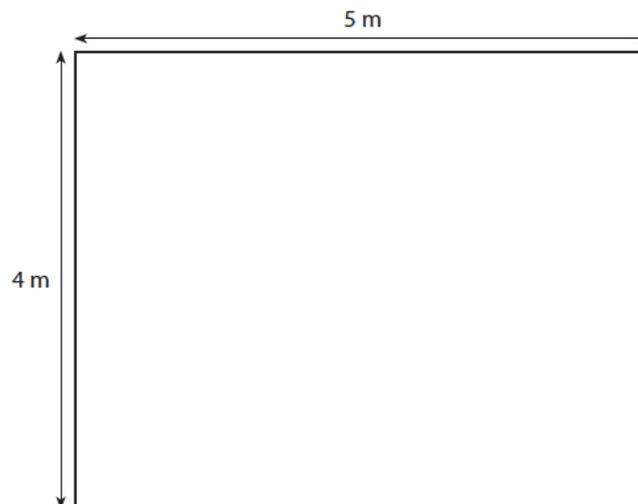
Kelly needs to choose some flooring to cover the lounge floor.

She finds this information.

<b>Flooring</b>	<b>1 pack covers</b>	<b>1 pack costs</b>
Gold oak	4 m <sup>2</sup>	£32
White pine	3 m <sup>2</sup>	£29
White oak	4 m <sup>2</sup>	£30
Yellow pine	2 m <sup>2</sup>	£21

Kelly wants pine flooring.

She draws a sketch of the floor.



Kelly can afford to spend up to £200 on flooring.

Does Kelly have enough money to buy all the pine flooring she needs?

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

**(Total for Question is 5 marks)**

**E2.**

Lisa wants to make her home safer.

She finds a first aid kit for £17.74

Lisa thinks it may be cheaper to make a kit up herself.

She finds these prices of items to go in a kit.

Kit items	
Plastic box	£5.94
Plasters	£2.29
Bandages	£7.95
Gloves	80p
Wipes	55p

- (a) How much money will Lisa save if she makes the first aid kit?  
Use the space below to show clearly how you get your answer.

(3)

Lisa and her husband want to do a first aid course.

She finds a course at the local college.

First Aid Course
Normal price £129.99
Buy now get a third off

Lisa wants to buy 2 places on the course.

- (b) How much money will Lisa save if she buys 2 places now?

Show a check of your working.

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

(4)

**(Total for Question is 5 marks)**

**E3.**

Laura is going to put an advert for her business in the paper.

She wants the advert to go in the paper for 4 weeks.

She finds this offer.

**Advert prices**

£63.90 each week.

Pay for 3 weeks, get the 4th week for  $\frac{1}{2}$  price.

Laura thinks it will cost less than £220 to put the advert in the paper for 4 weeks.

(a) Is Laura correct?

Show why you think this.

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

(4)

Laura wants 1000 business cards.

She finds these offers from two websites.

**Alpha Print**

£6.75 for 200 cards

**Supa Print**

£7.50 for 250 cards

Laura wants to spend as little money as possible.

(b) Which website should Laura use?

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

(4)

(Total for Question is 8 marks)

**END OF QUESTIONS**