1st Class Maths

PREDICTED PAPER

Video Solutions

Candidate Surname	Other names

Centre Number	Candidate Number

Tuesday 1 November 2022

Morning (Time: 1 hours 30 minutes)

Mathematics

Paper 1 (Non-Calculator)

Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pairs of compasses, pen, HB pencil, eraser. Tracing paper may be used.

Total Marks

Student Self Reflection

Topics/Question I need to ***revise***

Topics/Questions I need to ***learn***

Answer ALL questions

Write your answers in the spaces provided

You must write down all the stages in your working.

1 Write 0.7 as a fraction.

.....

(Total for Question 1 is 1 mark)

2 Work out the value of 2^3

.....

(Total for Question 2 is 1 mark)

3 Work out $4 + 10 \div 2$

.....

(Total for Question 3 is 1 mark)

4 Work out 20% of 300

.....

(Total for Question 4 is 2 marks)

5 Work out $\frac{1}{4}$ of 60

.....

(Total for Question 5 is 1 mark)

6 Write down all the factors of 20

.....

(Total for Question 6 is 2 marks)

7 (a) Simplify $5 \times a \times a$

.....

(1)

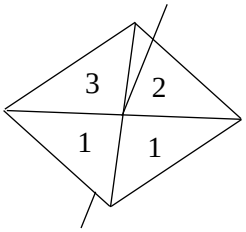
(b) Simplify $5x + 7y + 3x - 2y$

.....

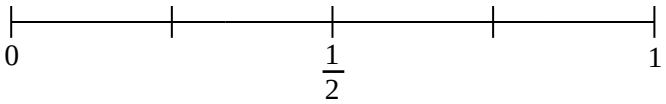
(2)

(Total for Question 7 is 3 marks)

8 A fair spinner made from a square is shown below.

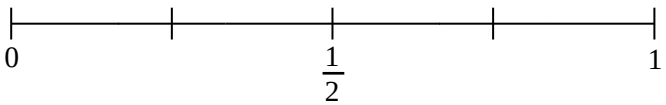


(a) On the probability scale below, mark with a cross (×) the probability that the spinner lands on a number 3



(1)

(b) On the probability scale below, mark with a cross (×) the probability that the spinner lands on a number that is a factor of 6.



(1)

A bag contains 20 counters.

8 counters are blue
9 counters are red
The rest of the counters are yellow.

A counter is taken from the bag at random.

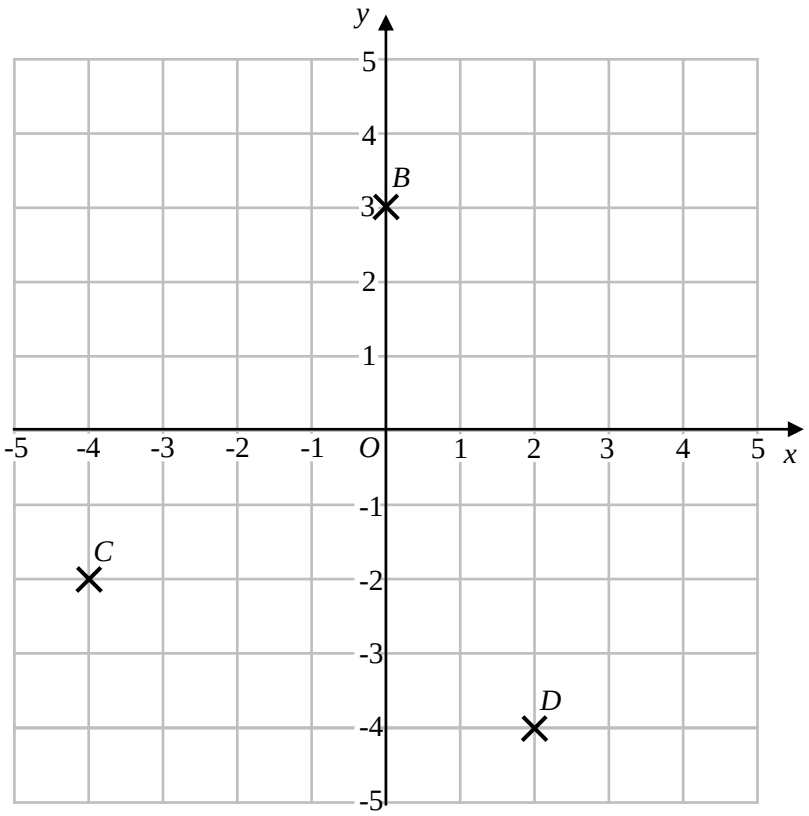
(c) Work out the probability that the counter taken is yellow.

.....

(2)

(Total for Question 8 is 4 marks)

9



(a) Write down the coordinates of point *B*.

(..... , ...)

(1)

(b) Write down the coordinates of the midpoint of *CD*.

(..... , ...)

(1)

(Total for Question 9 is 2 marks)

10 20 students were asked what their favourite weekday was.

The table shows the results.

Monday	4
Tuesday	2
Wednesday	2
Thursday	3
Friday	9

(a) Write down the modal day.

.....

(1)

(b) What fraction of the 20 students selected Monday.
Give your answer in its simplest form.

.....

(2)

(c) What percentage of the 20 students selected Thursday.

..... %

(2)

(Total for Question 10 is 5 marks)

11 During one evening Cara spends

45 minutes playing computer games

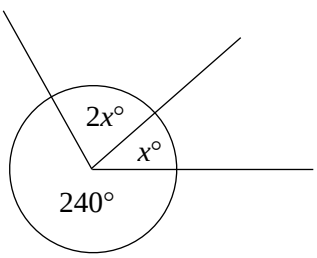
$2\frac{1}{2}$ hours revising

Write, as a ratio, the time Cara spends playing computer games to the time she spends revising.
Give your answer in simplest form.

.....

(Total for Question 11 is 3 marks)

12



Find the value of x.

x = ... °

(Total for Question 12 is 3 marks)

13 Jay is buying a caravan.

The caravan costs a total of £6000.

Jay will pay a deposit of £3200 of then the remaining amount in 8 monthly payments.

Work out the cost of each monthly payment.

£ .....

(Total for Question 13 is 3 marks)

14 A machine produces 6 pairs of jeans in one hour.

(a) Work out how many hours the machine would take to make 39 pairs of jeans.

..... hours

(2)

(b) State one assumption you made in working out your answer to part (a)

.....

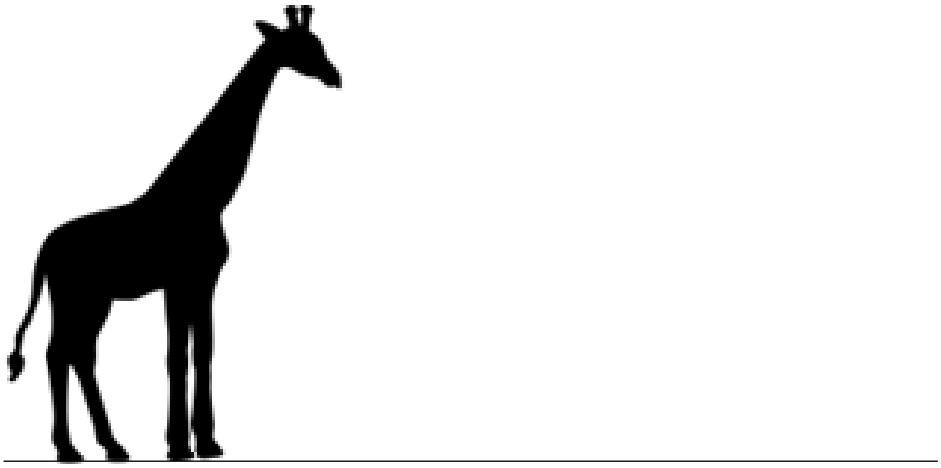
.....

.....

(1)

(Total for Question 14 is 3 marks)

15 Below is a scale drawing of a giraffe.



The scale of the diagram is 1:75

Work out the height of the giraffe.
Give your answer in metres.

..... m

(Total for Question 15 is 4 marks)

Turn over ▶

16 Claire and James share £450 in the ratio 7:2
Work out how much more money Claire receives than James.

£ .....

(Total for Question 16 is 3 marks)

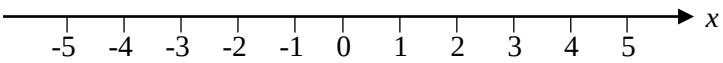
17 Giuseppe is runs 1.8 km in 10 minutes.

Work out his average speed in metres per second.

..... m/s

(Total for Question 17 is 4 marks)

18 (a) On the number line, show the inequality $x \geq -3$



(2)

(b) Solve $8x + 28 < 2x - 2$

.....

(3)

(c) Factorise $x^2 + 9x + 20$

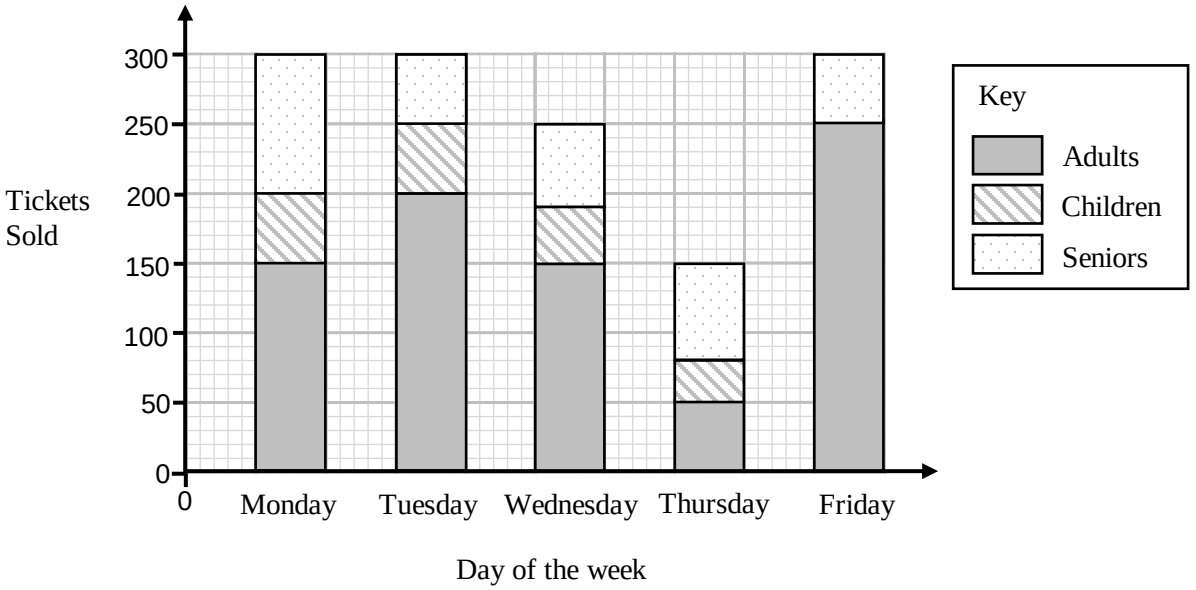
.....

(2)

(Total for Question 18 is 7 marks)

19 A theatre sells three types of tickets, adults, children and seniors.

The composite bar chart shows information about the different tickets sold during one week.



(a) Work out many more adult tickets were sold than senior tickets on Wednesday.

.....

(2)

(b) Work out the total number of tickets sold in this week.

.....

(2)

The theatre is closed at the weekend and opens for 30 weeks each year.

(c) Work out an estimate for the number of tickets the theatre will sell during one year.

.....

(2)

(d) State one assumption you made in working out your answer to part (c)

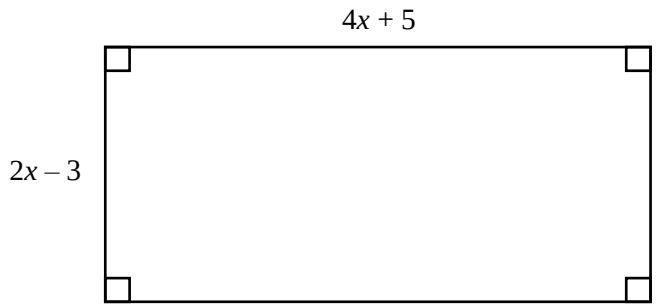
.....

.....

(1)

(Total for Question 19 is 7 marks)

20 Here is a rectangle with a perimeter of 52 cm



(a) Show that $12x + 4 = 52$

(2)

(b) Find the value of x

$x =$ .....

(2)

(Total for Question 20 is 4 marks)

21 Work out 24.8×3.2

.....

(Total for Question 21 is 3 marks)

22 Show that $2\frac{2}{5} \div 1\frac{1}{3} = 1\frac{4}{5}$

(Total for Question 22 is 3 marks)

23 (a) Write 130 as a product of prime factors

.....

(2)

(b) Work out the value of $5^6 \div (5^3 \times 5^2)$

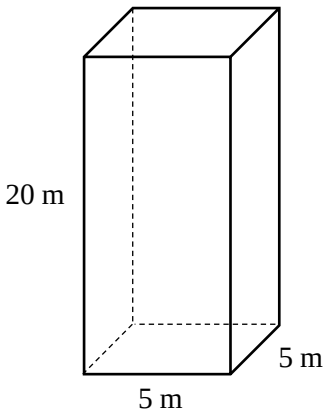
.....

(2)

(Total for Question 23 is 4 marks)

Turn over ▶

24 The diagram shows a cuboid placed on a horizontal floor.



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

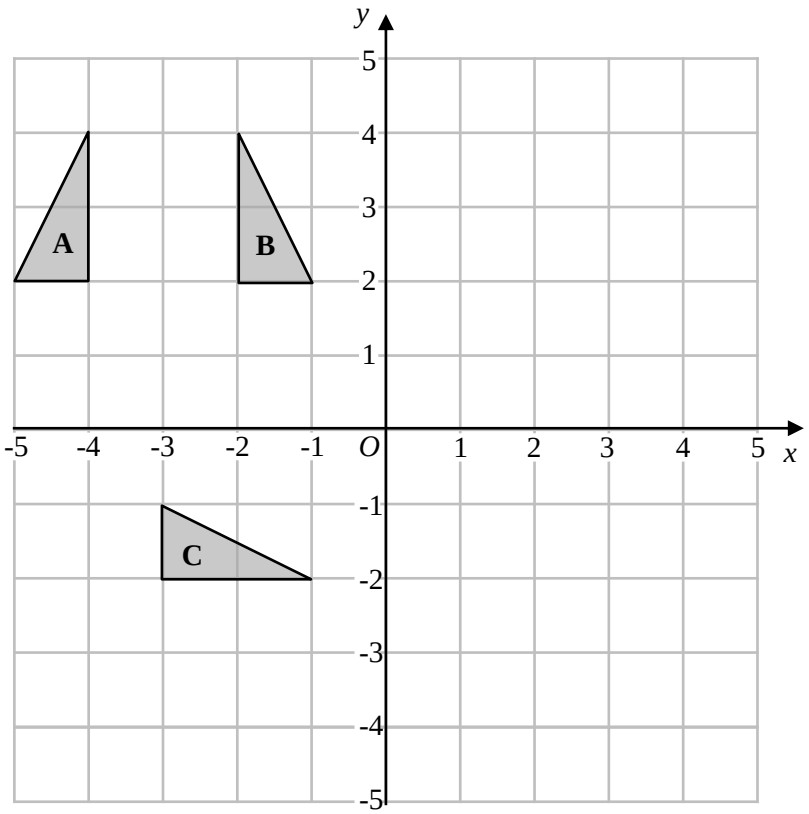
The force exerted by the cuboid on the floor is equal to 200 newtons.

Calculate the pressure on the floor due to the cuboid in newtons/m^2

..... newtons/m^2

(Total for Question 24 is 3 marks)

25



(a) Describe fully the single transformation that maps triangle **A** onto triangle **B**

.....

.....

(2)

(b) Rotate triangle **C** 180° clockwise about the point (1,1)
Label the new triangle **D**.

(2)

(Total for Question 25 is 4 marks)

TOTAL FOR PAPER IS 80 MARKS