KING'S COLLEGE JUNIOR SCHOOL

WIMBLEDON

SPECIMEN PAPER

GROUP D

MATHEMATICS

Time Allowed: 45 minutes

Name: _____

INSTRUCTIONS

You will need a pencil and a ruler.

No Calculator allowed.

Write your answers in the spaces provided on this paper.

Use any spare space on the page for working out.

If you have time at the end, check your answers carefully.

Try to answer as many questions as you can.

If you cannot do a question, leave it and move onto the next question.

Work out the following

1)

$$\begin{array}{r} 7\,9\,4\,8 \\ +\quad 6\,8\,9 \\ \hline \\ \hline \end{array}$$

2)

$$\begin{array}{r} 9\,5\,6\,6 \\ -\,3\,6\,8\,4 \\ \hline \\ \hline \end{array}$$

3)

$$\begin{array}{r} 6\,9 \\ \times\quad 7\,8 \\ \hline \\ \hline \\ \hline \end{array}$$

4)

$$9\overline{)5\,7\,6\,9}$$

5) Fill in missing digits in the following sums:

a)

$$\begin{array}{r} 5\,8\,4 \\ +\quad 7\,\square\,9 \\ \hline 1\,3\,1\,3 \\ \hline \end{array}$$

b)

$$\begin{array}{r} 7\,8\,1 \\ -\,3\,6\,9 \\ \hline 4\,\square\,\square \\ \hline \end{array}$$

c)

$$\begin{array}{r} \quad 1\,6 \\ \hline \square\,\big)\,1\,2\,8 \end{array}$$

d)

$$\begin{array}{r} \quad 9\,6 \\ \times\quad \quad \square \\ \hline 6\,7\,2 \\ \hline \end{array}$$

6) Write in figures the number seven million, four hundred and eighty thousand and twenty four

_____

7) Write in words the number 2,305,069

_____

_____

8) In each row work out the next two terms in the sequence.

Write your answers on the line.

a) 43 , 56 , 69 , 82 , _____ , _____

b) 85 , 71 , 57 , 43 , _____ , _____

c) 700 , 580 , 460 , _____ , _____

d) 1 , 4 , 9 , 16 , 25 , _____ , _____

e) – 40 , – 37 , – 34 , _____ , _____

9) For each row work out what is missing and write it on the line

a) 2710 , 2725 , _____ , 2755 , 2770

b) – 11 , – 4 , _____ , 10 , 17

c) 0·04 , 0·08 , 0·12 , _____ , 0·2 , 0·24

10) A diver is below the surface of the water at – 30m. He goes up by 12 metres and then down 4 metres. How far below the surface is he now?

_____

11) The temperature at 9 o'clock is 16°c. During the day it falls by 22°c.
What is the temperature in the evening?

_____

12) Here is a grid of numbers

6	8	17
21	22	25
28	40	41
49	54	72

From this grid write down:

a) two square numbers:

_____ and _____

b) two multiples of 8:

_____ and _____

c) two factors of 42:

_____ and _____

d) two numbers whose sum is 50:

_____ and _____

e) two prime numbers:

_____ and _____

f) the product of 9 and 6

_____

13) Write $\frac{37}{7}$ as a mixed number

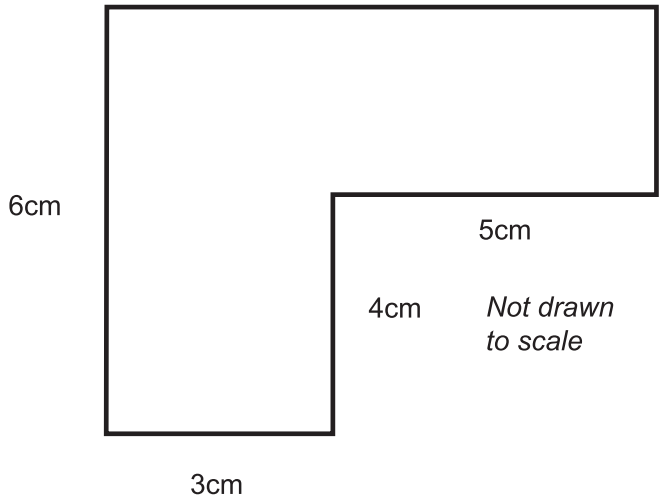
14) Write $9\frac{5}{12}$ as a top-heavy improper fraction

15) Cancel down $\frac{36}{63}$ to its lowest terms

16) Find the missing number to make these fractions equivalent

$\frac{6}{7} = \frac{\quad}{56}$

17) This diagram represents an L-shaped room.



a) Calculate the perimeter of the room

b) Calculate the area of the room

18) Calculate:

a) $\frac{7}{10} + \frac{2}{5}$

b) $\frac{7}{12} - \frac{3}{8}$

c) $\frac{3}{7}$ of 91 footballs

d) £72·50 – £16·64

e) 30% of 80 pupils

19) Richard has £1·48. James has half as much as Richard.
How much do they have altogether?

20) Seven pieces of string each measure 9cm.

Find their total length in millimetres

_____

21) Sarah, Sue and Elizabeth go out to supper at the Zamora restaurant.
Their total bill is £59.52 which they share equally.

How much does each of them pay?

_____

22) At the gym there are 2 boys for every 3 girls. There are 15 girls at the club.

How many boys are there?

_____

23) A mother seal is fed 5 fish for every 2 fish for its baby.
Together Alice fed them 28 fish.

How many fish does the mother get?

_____

24) I think of a number, subtract 8 and multiply by 4. The answer is 20.

What was my number?

_____

25) Ravi bought a pack of 30 biscuits. He ate a fifth of them on Thursday.
He ate a third of the remaining biscuits on Friday.

How many biscuits did he have left?

_____

26) There is space in the multi-story car park for 17 rows of 30 cars on each of 4 floors.How many cars can be parked?

_____

27) There is 25% off prices in a sale.

How much do you get off a jumper costing £36?

_____

28) a) The length of a rectangle is 2cm more than its width.

Calculate the perimeter of the rectangle when the width is 8cm.

_____

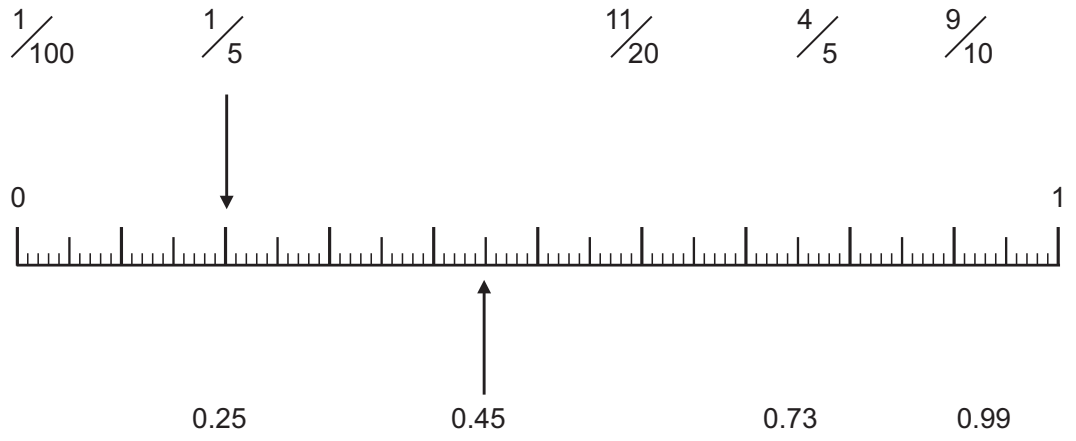
b) John uses a piece of string to measure the perimeter of shapes.
It fits exactly around a rectangle 10 cm by 8 cm.
He then fits it exactly around a square.

How long is one side of the square?

_____

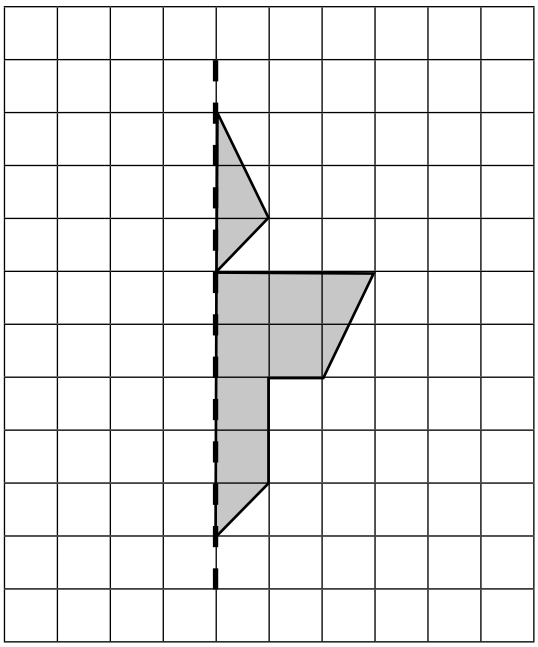
29) Show by drawing arrows, where each of the decimals and fractions belong on the number line below.

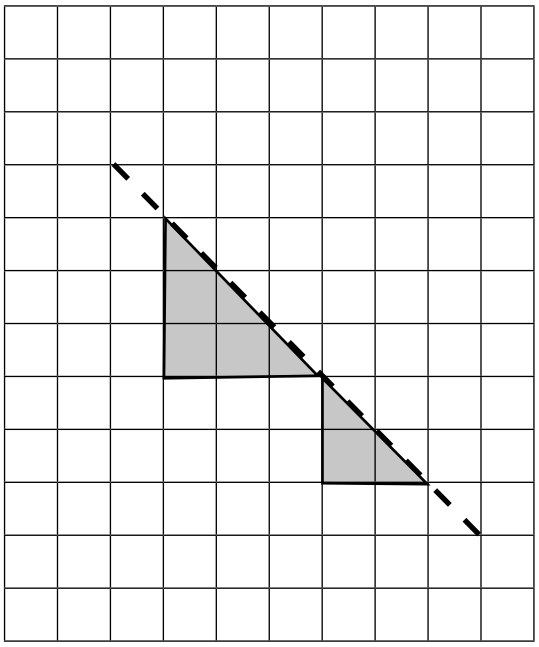
Be as accurate as you can.



30) The dotted lines in the questions below are mirror lines.

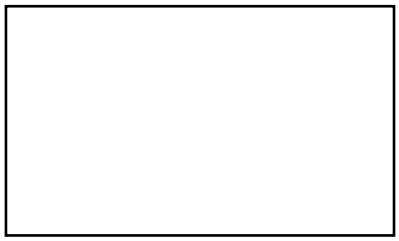
Draw the reflection of the shapes in the mirror lines.





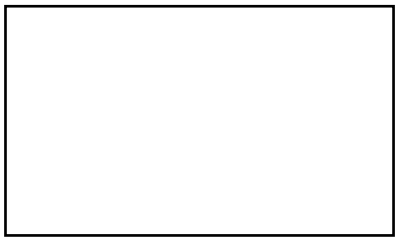
31) Draw just **ONE STRAIGHT LINE** through the shape to cut it into the parts described. Use a pencil and a ruler.

a



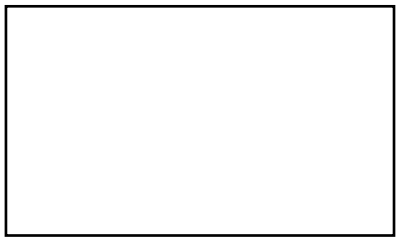
a) two identical rectangles

b



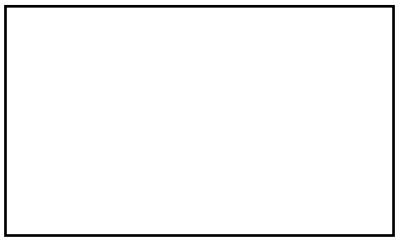
b) a square and a rectangle.

c



c) two identical right-angled

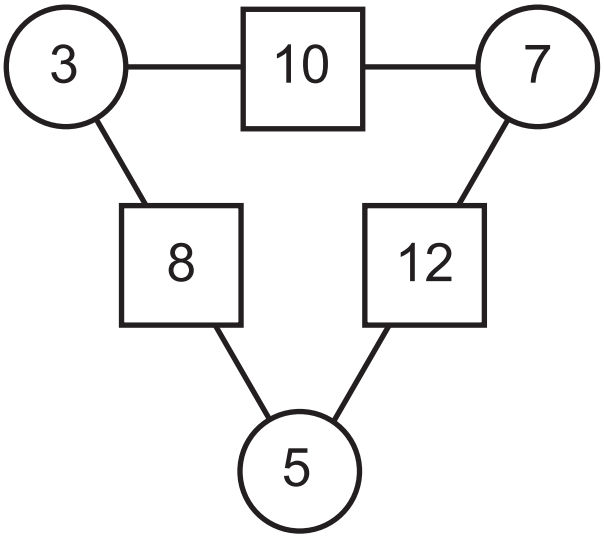
d

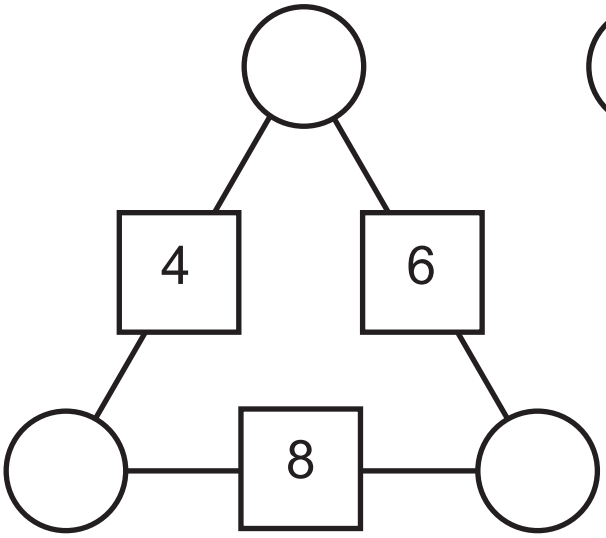


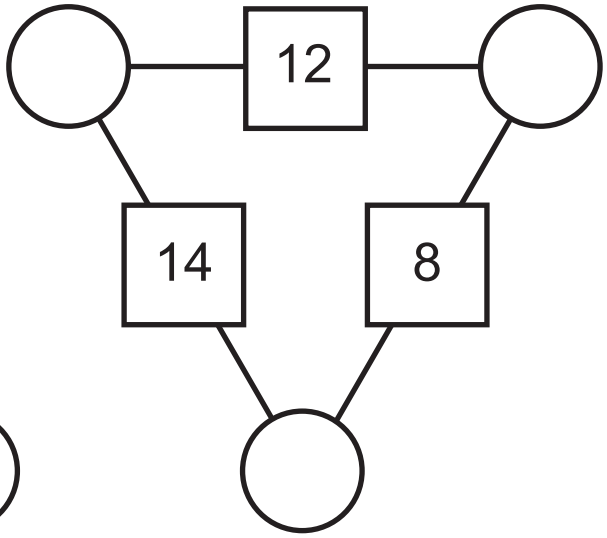
d) a triangle and trapezium.

32) In the diagram write a number in each circle so that the number in each square box equals the sum of the two numbers on either side of it.

The first one has been done as an example.







NOW GO BACK AND CHECK YOUR ANSWERS