

Year 6 Transition Extension/ Challenge Work - due

Question 1 - (3 marks available)

Work out, giving your answer as a mixed number:

$$3\frac{3}{4} - 2\frac{1}{5}$$

Question 2 - (2 marks available)

Work out:

$$\frac{3}{4} \times \frac{5}{7}$$

Question 3 - (2 marks available)

Work out:

$$\frac{2}{7} \div \frac{7}{8}$$

Question 4 - (2 marks available)

Using a calculator, work out:

a) $38 - 27 \div 3$

b) $5 \times (12 - 3 \times 2)$

Question 5 - (3 marks available)

By rounding to 1 significant figure, estimate the answers to these questions:

- a) 78×92
- b) 615×38
- c) 423×764

Question 6 - (4 marks available)

By rounding to one significant figure, estimate the answers to these questions:

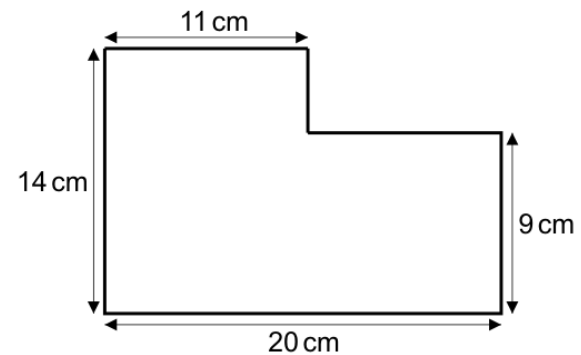
- a) $59 \div 25$
- b) $\frac{682}{71}$
- c) $\frac{91 \times 18}{58}$

Question 7 - (3 marks available)

- a) A car drives 160 km in 2 hours.
What is the average speed of the car?
- b) A car drives at 45 km/h for 3 hours.
How far does the car travel?
- c) A car drives 52 km at a speed of 13 km/h.
How long does the journey take?

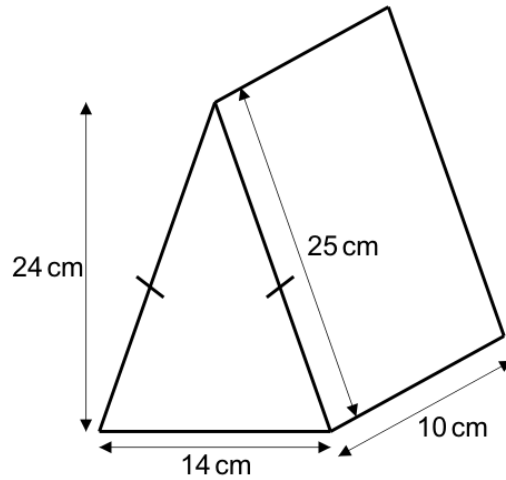
Question 8 - (3 marks available)

Find the area of the shape below.



Question 9 - (3 marks available)

Find the total surface area of this triangular prism.



Question 10 - (2 marks available)

Solve

$$6x + 5 = 3x + 14$$

Question 11 - (2 marks available)

Here is a sequence of numbers:

64 49 36 25 16

- What is the name given to these numbers?
- Find the next number in the sequence.

Question 12 - (2 marks available)

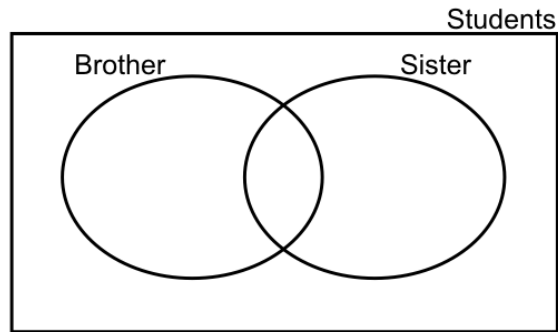
The two-way table shows information about the pupils in a primary school.

	Boys	Girls	Total
Can count	42	58	100
Cannot count	11	9	20
Total	53	67	120

- How many boys can count?
- What is the probability that any pupil is a boy and can count?

Question 13 - (3 marks available)

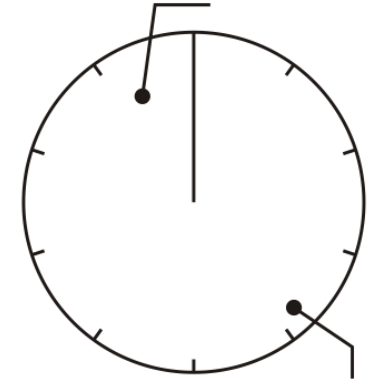
In a class of 20 students:
 11 people have a brother
 9 people have a sister
 6 people have neither
 Fill in the Venn Diagram.



Question 14 - (4 marks available)

The table shows the favourite colour of 100 people.

Colour	Frequency	Angle in °
Red	30	
Blue	10	
Green	50	
Yellow	10	



Complete the table and draw a pie chart to represent this information.

Note: Please draw your pie chart in a 'clockwise' direction from the line already drawn and follow the order from the table (Red, then Blue etc...).

Question 15 - (4 marks available)

Some teachers travelled to school by car.
 The table shows the number of teachers in the cars.

Number of teachers in one car	Number of cars
1	3
2	4
3	6
4	2

- What was the modal number of teachers in a car?
- What was the median number of teachers in a car?
- What was the mean number of teachers in a car?