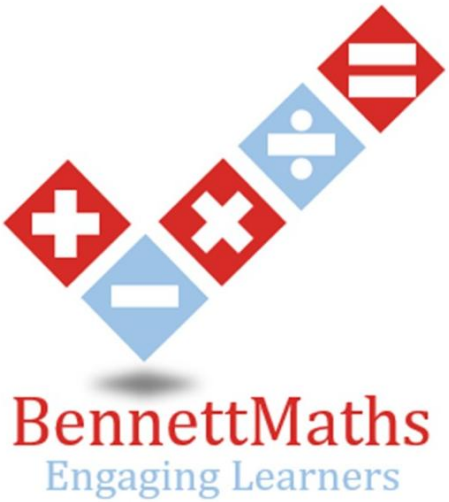


Name: _____

BennettMaths Edexcel 1F – Part 3

21 Work out $5\frac{3}{10} - 3\frac{2}{5}$

Give your answer as a mixed number.

.....

(Total for Question 21 is 3 marks)

---

22 A cube has a total volume of 64 cm^3

Work out the surface of the cube.

..... cm^2

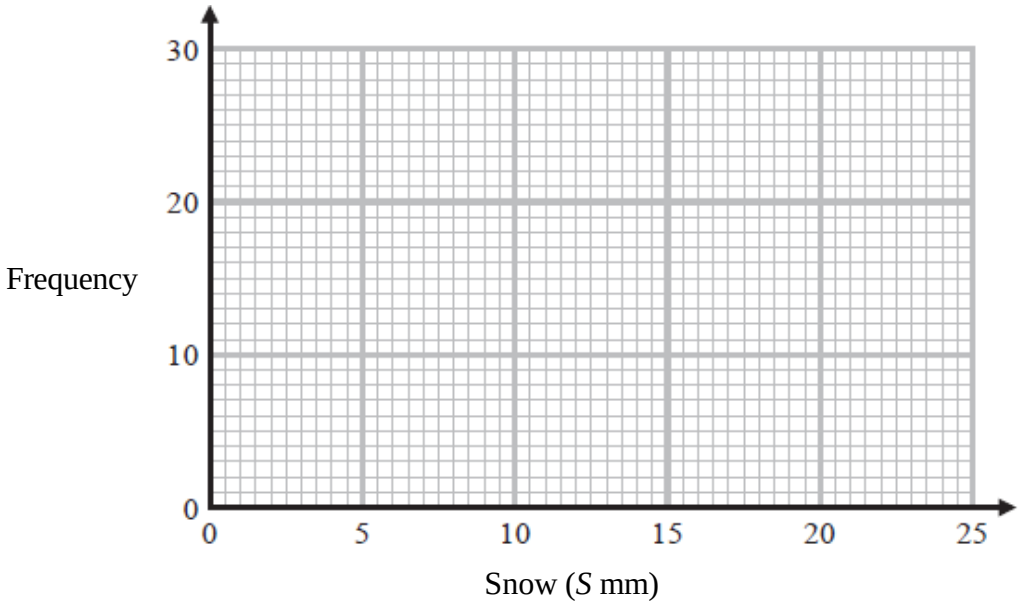
(Total for Question 22 is 4 marks)

---

23 The table shows information about the amount of snow, in mm, in a town for 70 days in winter.

Snow (S mm)	Frequency
$0 \leq S < 5$	2
$5 \leq S < 10$	22
$10 \leq S < 15$	17
$15 \leq S < 20$	9
$20 \leq S < 25$	14

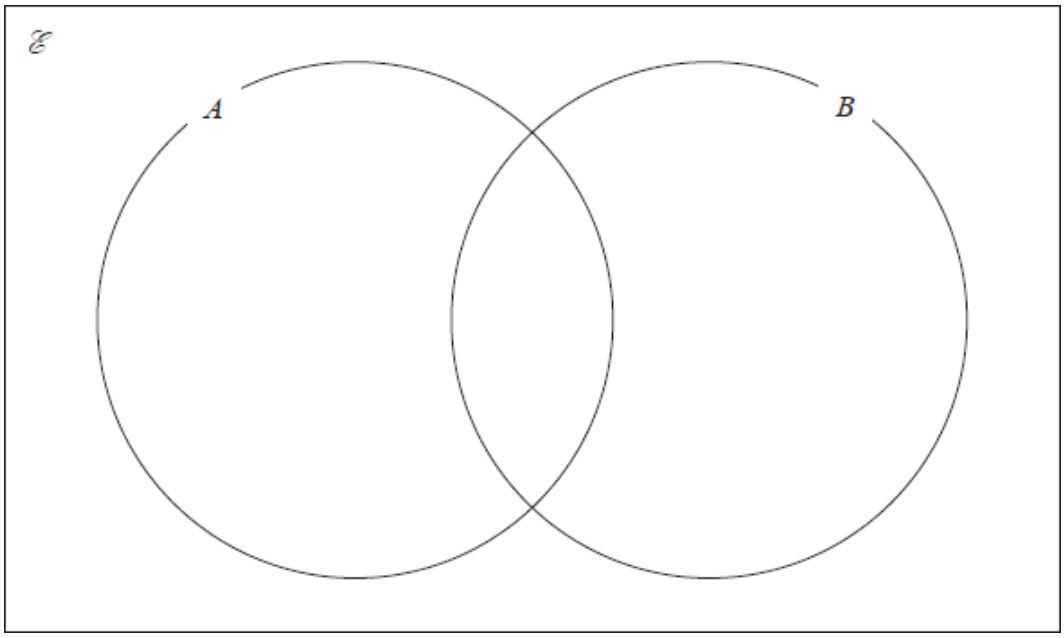
Draw a frequency polygon for this information.



(Total for Question 23 is 2 marks)

24 $\mathscr{E}$ = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
A = {even numbers}
B = {square numbers}

(a) Complete the Venn diagram for this information.



(3)

A number is chosen at random from the universal set $\mathscr{E}$

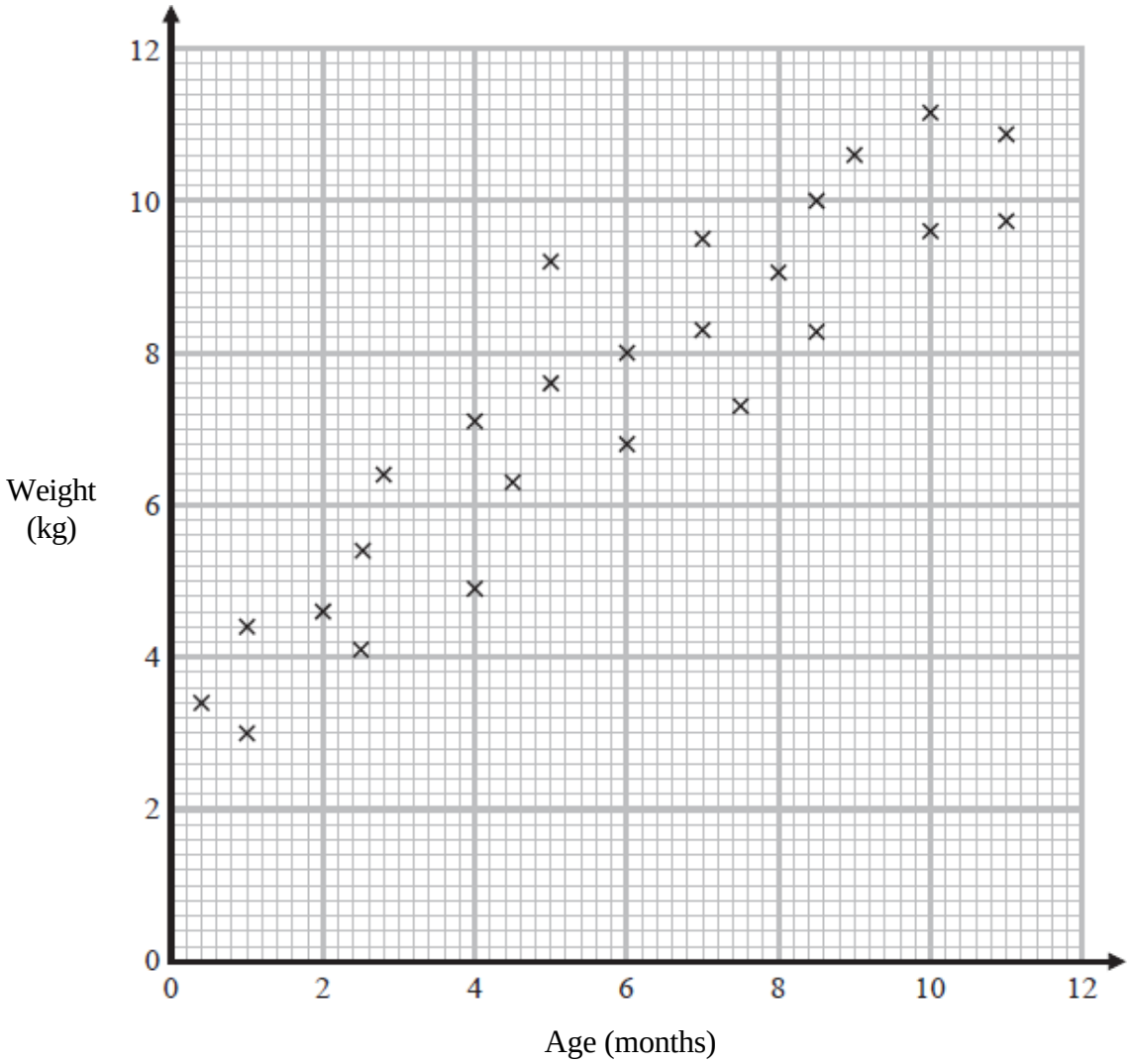
(b) Find the probability that this number is in the set A'

.....

(2)

(Total for Question 24 is 5 marks)

25 The scatter graph shows information about the ages and weights of some newborn monkeys.



(a) Describe the relationship between the age and the weight of the monkeys.

.....

.....

.....

(1)

Another monkey has a weight of 8.4 kg

(b) Using the scatter graph, find an estimate for the age of this monkey.

..... months

(2)

(Total for Question 25 is 3 marks)

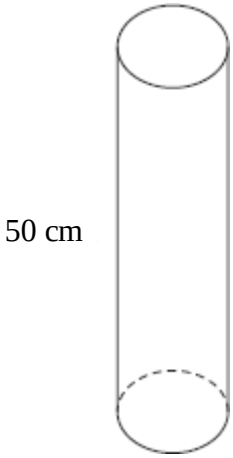
26 The price of a computer increases by 15%
This 15% increase adds £375 to the price of the computer.

Work out the price of the computer before the increase.

£.....

(Total for Question 26 is 2 marks)

27 The diagram shows a solid cylinder on a horizontal floor.



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

The cylinder has a

volume of 1500 cm^3

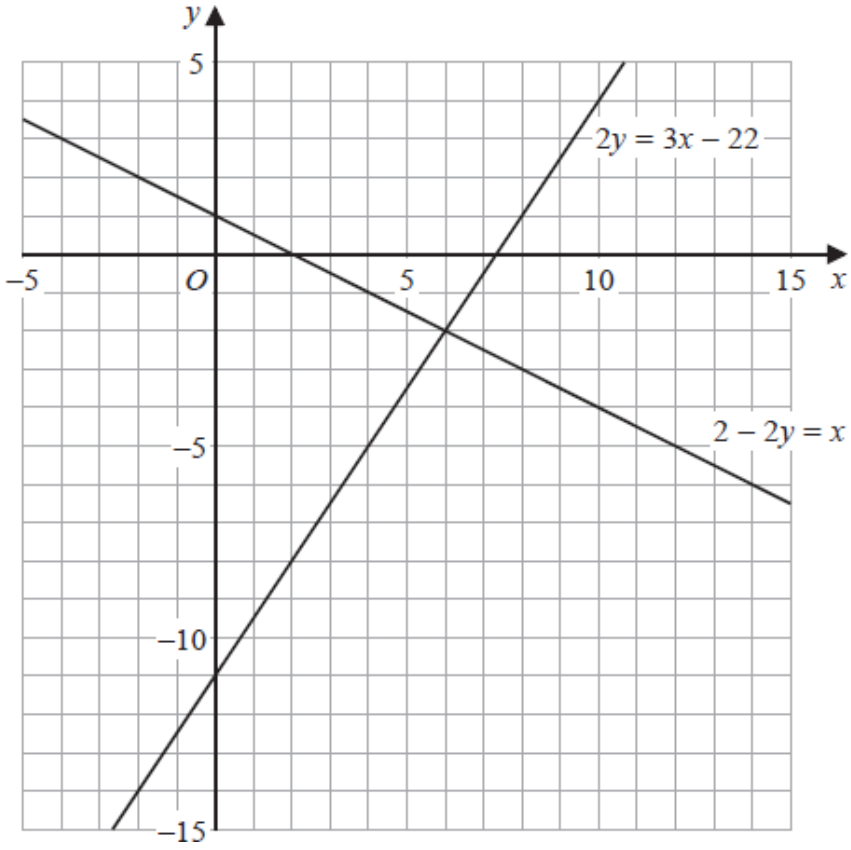
height of 50 cm.

The cylinder exerts a force of 120 newtons on the floor.
Work out the pressure on the floor due to the cylinder.

..... newtons/cm^2

(Total for Question 27 is 3 marks)

28



Use these graphs to solve the simultaneous equations

$$2y = 3x - 22$$

$$2 - 2y = x$$

x = ...

y = ...

(Total for Question 28 is 1 mark)

29 Work out the value of $\dfrac{5^{-3} \times 5^{6}}{5}$

.....

(Total for Question 29 is 2 marks)

---

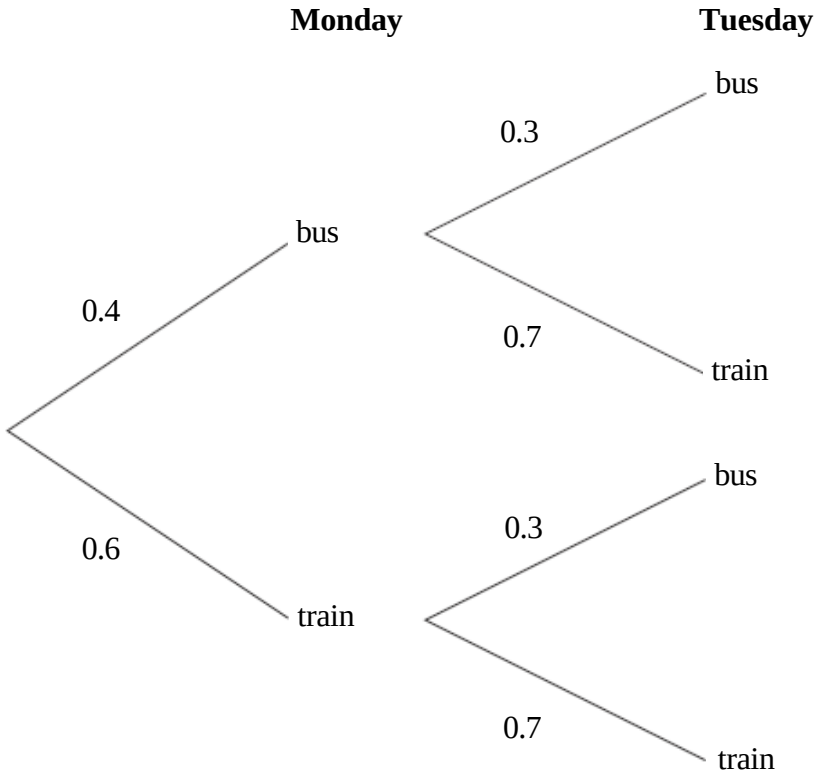
30 Write down the exact value of cos 30°

.....

(Total for Question 30 is 1 mark)

---

31 The probability tree diagram shows the probabilities that Simon will take the bus or train to work on two days next week.



Work out the probability that Simon will take the train on Monday and take the bus on Tuesday.

.....

(Total for Question 31 is 2 marks)