

9. The sum of three numbers is 16.

Each of the three numbers is a factor of 24.

What could the three numbers be?

[4 marks]

Answer _____, _____ and _____

10. Solve the equation $4(x - 2) = 2$

[2 marks]

Answer $x =$ _____

11. Mike takes his two children, Bethany and Ethan, to a BMX track.

All three are going to take part.

Here are the costs for the BMX session:

| | Child | Adult |
|--------------------|-------|-------|
| BMX session | £6.40 | £8.25 |
| Bike hire | £2.20 | £3.50 |
| Helmet hire | £1.50 | £2.00 |
| Pads hire | £1.50 | £2.00 |

Ethan takes his own bike, helmet and pads.

Bethany takes her own bike, **but** needs to hire helmet and pads.

Mike needs to hire a bike, helmet and pads.

Find the total cost of the BMX trip.

[3 marks]

Answer £ _____

12. Melanie has chosen to do three activities at an outdoor adventure park.

They are:

- Air Jump
- 3G Swing
- High Ropes

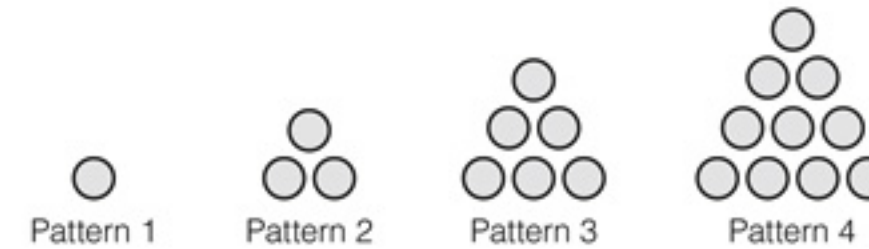
She can do them in any order she likes.

How many different possible combinations are there?

[3 marks]

Answer _____

13. Here are the first four patterns in a sequence.



(a) How many circles will make up pattern 6?

[2 marks]

Answer _____

(b) Describe the sequence using the words 'Odd numbers' and 'Even numbers'.

[1 mark]

GCSE Mathematics

Foundation tier

F

Paper 2

Time: 1 hour 30 minutes

For this paper you must have:

- a calculator
- mathematical instruments



Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Read each question carefully before you start to write your answer.
- Diagrams are **not** accurately drawn unless otherwise stated.
- Answer **all** the questions.
- Answer the questions in the space provided.
- In all calculations, show clearly how you work out your answer. Use a separate sheet of paper if needed. Marks may be given for a correct method even if the answer is wrong.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Information

- The marks for each question are shown in brackets.
- The maximum mark for this paper is 80.

Name: _____

1. (a) Round 34562 to the nearest 100. [1 mark]

Answer _____

- (b) Round 428098 to the nearest 1000. [1 mark]

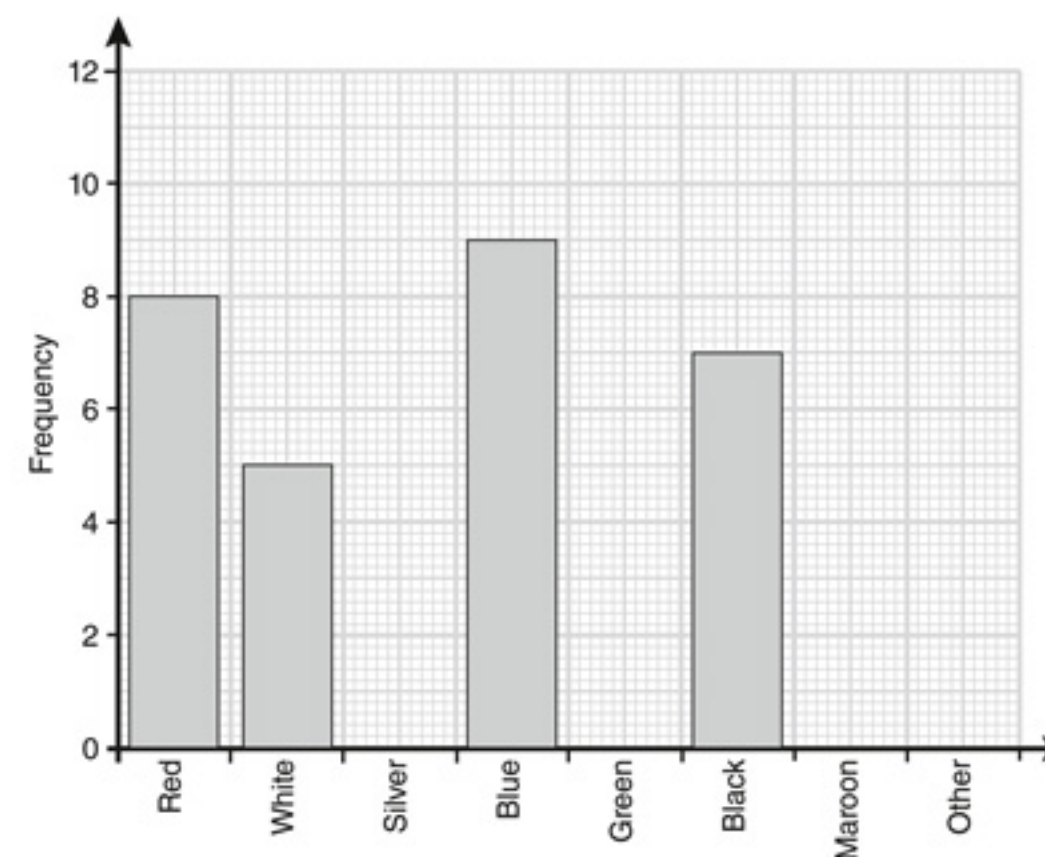
Answer _____

2. Write the following decimals in order of size from smallest to largest. [2 marks]
- 0.803 0.083 0.83 0.8 0.883

Answer _____

3. The table and bar chart show the colour of cars in a car park at midday.

| Colour of car | Red | White | Silver | Blue | Green | Black | Maroon | Other |
|---------------|-----|-------|--------|------|-------|-------|--------|-------|
| Frequency | 8 | | 10 | | 4 | | 2 | 3 |



- (a) Complete the frequency table and bar chart. [2 marks]

An hour later, 5 cars have left and 8 have arrived.

- (b) How many cars are now in the car park? [1 mark]

Answer _____

4. These were the lowest recorded temperatures in three British cities last year:

| | |
|--|---|
| Manchester: -8.3°C | Edinburgh: 3.2°C colder than Manchester |
| London: 3.6°C warmer than Manchester | |

(a) What was the lowest recorded temperature in Edinburgh last year? [1 mark]

Answer $^{\circ}\text{C}$

(b) What was the lowest recorded temperature in London last year? [1 mark]

Answer $^{\circ}\text{C}$

5. (a) Write $\frac{3}{8}$ as a decimal. [1 mark]

Answer

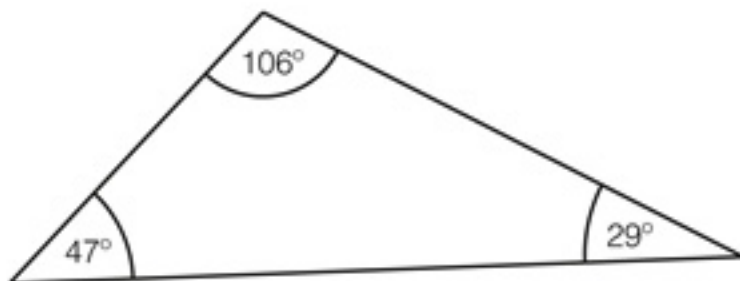
(b) Work out $\frac{13}{16} - \frac{1}{4}$ [2 marks]

Answer

(c) Work out $\frac{3}{4}$ of 3 [2 marks]

Answer

6.



Is it possible to draw this triangle accurately? Give a reason for your answer. [2 marks]

.....
.....
.....

7. There are four blue counters, three white counters and two red counters in a bag.

Sandeep is going to take one counter and keep it. Then Colin is going to take one.

(a) Find the probability that Sandeep chooses a white counter. [1 mark]

Answer

Sandeep does choose a white counter.

(b) Find the probability that Colin chooses a white counter. [1 mark]

Answer

8. Libby is thinking of a number, n .

She subtracts 5 from her number and then multiplies her answer by 3.

Write an algebraic expression to show this. [2 marks]

Answer

9. Becky and Nate share $\pounds 420$ in the ratio 3 : 4

(a) What fraction of the money does Becky get? [1 mark]

Answer

(b) How much money does Nate get? [3 marks]

Answer \pounds