

GCSE MATHEMATICS (9-1) — EXAM PRACTICE WORKBOOK

Grade 1 & 2 Mathematics — Practice Questions

(Foundation Tier)

Exam Questions with Calculator Tags, Mixed Review Sets & Full Answers

- **6 Exam-Style Practice Questions** for every topic
- **Calculator & Non-Calculator Labels** on every single question
- **2 Mixed Practice Sets** (Paper 1 & Paper 2/3) to practise picking methods
- **Full Working Boxes** & Topic-Linked Answer Key at the back

Student Name: _____

Class / Teacher: _____

Target Grade: _____



SCAN FOR ONLINE PRACTICE & WORKED SOLUTIONS

BreakingDownMaths.com

Interactive Step-by-Step GCSE Mathematics Mastery

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Use the page numbers to find any topic. Finish with both Mixed Practice Sets before checking your answers at the back.

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Negative Numbers

EDEXCEL GCSE EXAM PRACTICE

Total: 9 marks

Negative Numbers — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

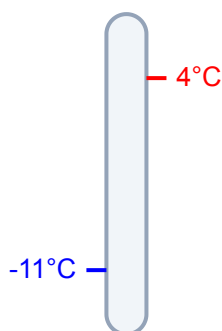
Question 1 ☒ Non-Calculator

(2 marks)

At midnight, the temperature in Stockholm was -11°C .

At 9am, the temperature was 4°C .

By how many degrees did the temperature rise?



WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Work out the answer to the following:

$$-5 + 2$$

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

Work out the answer to the following:

$$2 - (-8)$$

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Work out the answer to the following:

$$-13 - -4$$

WORKING OUT SPACE

Answer:

Question 5 **Non-Calculator****(1 mark)**

Work out:

$$-2 \times 9$$

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(1 mark)**

Work out the missing number that would make the calculation correct:

$$[\quad] \div -4 = -7$$

WORKING OUT SPACE

Answer:

Decimals

EDEXCEL GCSE EXAM PRACTICE

Total: 12 marks

Decimals — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(2 marks)

Work out the value of:

$$13.6 - 4.24$$

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(2 marks)

Work out the value of:

$$11.15 + 18.5$$

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(2 marks)

Work out the value of:

$$4.09 + 12.3$$

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Work out the value of:

$$4 \div 0.8$$

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(2 marks)**

Work out the value of:

$$0.4 \times 0.3$$

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(2 marks)**

Work out the value of:

$$4.4 \div 0.4$$

WORKING OUT SPACE

Answer:

Ordering Decimals

EDEXCEL GCSE EXAM PRACTICE

Total: 6 marks

Ordering Decimals — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Find the smallest number out of the following:

0.301, 0.65, 0.6, 0.12

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Write these numbers in order of size. Start with the largest.

1.8, 1.071, 4.6, 7.9, 9.07

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Write these numbers in order of size. Start with the smallest.

0.265, 3.0, 3.1, 6.159, 7.5

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(1 mark)**

Put the correct inequality sign (< or >) between the numbers below:

0.5 ____ 0.421

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(1 mark)**

Five athletes compete in a club long jump trial. The distances recorded were:

4.8m, 3.501m, 4.3m, 3.53m, 3.763m

Put the jumps in order, starting with the longest.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(1 mark)**

Five kayak paddles are measured at an outdoor centre. Their lengths are:

4.17m, 4.75m, 4.5m, 3.67m, 4.42m

Put the lengths in order, starting with the longest.

WORKING OUT SPACE

Answer:

Rounding

EDEXCEL GCSE EXAM PRACTICE

Total: 6 marks

Rounding — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Write 6758 to the nearest 1000.

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Write 9299 to the nearest 100.

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Write 70.8207 correct to 2 decimal places.

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(1 mark)**

Write 25.98 correct to 1 decimal place.

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(1 mark)**

Write 26189 correct to 2 significant figures.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(1 mark)**

Write 620.953 correct to 1 significant figure.

WORKING OUT SPACE

Answer:

Money Problems

EDEXCEL GCSE EXAM PRACTICE

Total: 12 marks

Money Problems — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 **Calculator****(2 marks)**

Aisha buys:

1 sketchbook for £1.94

3 water bottles for £0.84 each.

She pays with a £10 note.

How much change does she get?

WORKING OUT SPACE

Answer:

Question 2 **Non-Calculator****(2 marks)**

Noah buys 3 granola bars costing 49p each.

He pays with a £10 note.

How much change does he receive?

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

Amira buys 2 folders costing 67p each.
She pays with a £10 note.

How much change does she receive?

WORKING OUT SPACE

Answer:**Question 4** **Non-Calculator****(2 marks)**

Leo buys 4 pastries costing 72p each.
He pays with a £5 note.

How much change does he receive?

WORKING OUT SPACE

Answer:**Question 5** **Calculator****(2 marks)**

Daniel buys:
1 guidebook for £4.03
4 flapjacks for £0.96 each.

He pays with a £20 note.
How much change does he get?

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

Priya buys 4 mangoes costing 88p each.
She pays with a £5 note.

How much change does she receive?

WORKING OUT SPACE

Answer:

Time & Timetables

EDEXCEL GCSE EXAM PRACTICE**Total: 12 marks**

Time & Timetables — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ **Non-Calculator****(2 marks)**

Convert 4 hours into minutes.

WORKING OUT SPACE

Answer:

Question 2 ☒ **Non-Calculator****(2 marks)**

Convert 420 minutes into hours.

WORKING OUT SPACE

Answer:

Question 3 ☒ **Non-Calculator****(2 marks)**

A concert starts at 19:25 and finishes at 21:10.
Work out the duration of the concert in minutes.

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

A movie lasts for **116 minutes**. It starts at **15:40**.

At what time does the movie finish? Give your answer in **24-hour clock format** (e.g. 17:00).

WORKING OUT SPACE

Answer:

Question 5 **Non-Calculator****(2 marks)**

Here is part of a train timetable between Waverley and Dunmore.

Station	Train A	Train B	Train C
Waverley	07:35	08:05	08:35
Kirkby	07:53	-	08:53
Dunmore	08:17	08:39	09:17

How many minutes does **Train A** take to travel from **Waverley** to **Dunmore**?

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

Here is part of a bus timetable from Brookfield to Lakeside.

Stop	Bus 1	Bus 2	Bus 3	Bus 4
Brookfield	09:18	09:38	09:58	10:18
Town Hall	09:34	09:54	10:14	10:34
Lakeside	09:51	10:11	10:31	10:51

Arjun arrives at the **Brookfield** bus stop at **09:29** and catches the next bus to Lakeside.

At what time does Arjun arrive at **Lakeside**? Give your answer in **24-hour** clock format.

WORKING OUT SPACE

Answer:

BIDMAS

EDEXCEL GCSE EXAM PRACTICE

Total: 6 marks

BIDMAS — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Work out the value of:

$$11 + 6 \times 8$$

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Work out the value of:

$$5 + 3 \times 10 \div 5$$

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Work out the value of:

$$(18 - 5) \times 3$$

WORKING OUT SPACE

Answer:

Question 4 Non-Calculator**(1 mark)**

Work out the value of:

$$16 + 5^2$$

WORKING OUT SPACE

Answer:

Question 5 Non-Calculator**(1 mark)**

Write brackets () in this statement to make it correct. You may use more than one pair.

$$7 + 8 \times 4 + 3 = 63$$

WORKING OUT SPACE

Answer:

Question 6 Non-Calculator**(1 mark)**

Write brackets () in this statement to make it correct. You may use more than one pair.

$$4 + 4 \times 9 + 7 = 128$$

WORKING OUT SPACE

Answer:

Powers & Roots

EDEXCEL GCSE EXAM PRACTICE

Total: 6 marks

Powers & Roots — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Work out the value of 12^2 .

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Work out the square of 11.

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Work out the value of $\sqrt{81}$.

WORKING OUT SPACE

Answer:

Question 4 Non-Calculator**(1 mark)**Work out the value of $\sqrt[3]{64}$.

WORKING OUT SPACE

Answer:

Question 5 Non-Calculator**(1 mark)**

Here is a list of numbers:

14 21 25 30 42 55From the list, write down the **square number**.

WORKING OUT SPACE

Answer:

Question 6 Non-Calculator**(1 mark)**

Here is a list of numbers:

6 12 18 27 33 45From the list, write down the **cube number**.

WORKING OUT SPACE

Answer:

Factors & Multiples

EDEXCEL GCSE EXAM PRACTICE

Total: 6 marks

Factors & Multiples — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Write down two factors of 30.

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Write down two multiples of 6.

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Write down a multiple of 11 that is between 35 and 46.

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(1 mark)**

Write down all the prime numbers between 30 and 40.

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(1 mark)**

Write down two prime numbers that have a sum of 14.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(1 mark)**

Nadia chooses a whole number.

She says, "My number is odd. It is a factor of 30 and a multiple of 3."

Write down all the possible numbers Nadia could have chosen.

WORKING OUT SPACE

Answer:

Fractions (Simplify, <, =, >)

EDEXCEL GCSE EXAM PRACTICE**Total: 9 marks**

Fractions (Simplify, <, =, >) — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator**(1 mark)**

Simplify this fraction fully: $\frac{9}{27}$

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator**(1 mark)**

Find the missing number to make these fractions equivalent:

$$\frac{2}{7} = \frac{?}{49}$$

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator**(1 mark)**

Which symbol makes this correct: <, >, or = ?

$$\frac{2}{3} \text{ — } \frac{1}{3}$$

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Here are two fractions:

$$\frac{7}{12} \quad \text{and} \quad \frac{4}{6}$$

Work out which of the fractions is closer to $\frac{1}{2}$.

WORKING OUT SPACE

Answer:

Question 5 **Non-Calculator****(2 marks)**Order from **smallest to largest**:

$$\frac{3}{10}, \frac{1}{3}, \frac{1}{5}$$

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

There are 28 beads in a craft jar.

The table shows the number of beads of each colour.

Colour	Yellow	Black	White	Orange
Number	7	2	7	12

What fraction of the beads are black? Give your answer in its simplest form.

WORKING OUT SPACE

Answer:

Pictograms

EDEXCEL GCSE EXAM PRACTICE

Total: 10 marks

Pictograms — Practice Questions

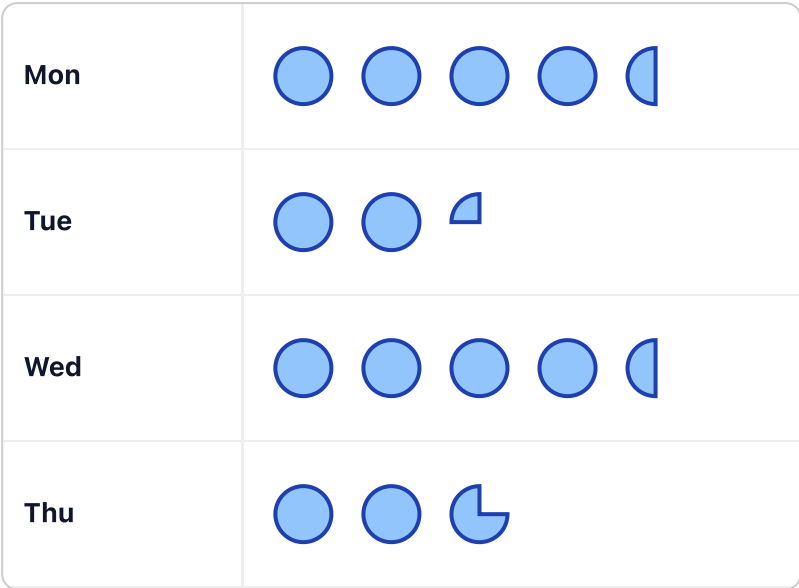
Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1

Non-Calculator

(1 mark)

The pictogram gives information about the number of wheels sold.



Key:  = 8 wheels

Write down the number of wheels sold on Mon.

WORKING OUT SPACE

Answer:

Question 2 **Non-Calculator****(1 mark)**

The pictogram gives information about the number of books sold.

January	 
February	 
March	 
April	   

Key:  = 4 books

How many more books were sold on April than on March?

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

This incomplete pictogram shows information about wheels sold.



Key:  = ? wheels

12 wheels were sold on Thu.

Use this information to find what number one full symbol represents in the Key.

WORKING OUT SPACE

Answer:

Question 4 **Calculator**

(2 marks)

The pictogram shows information about ice creams sold.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Key:  = 16 ice creams

What was the total number of ice creams sold across all recorded times?

WORKING OUT SPACE

Answer:

Question 5

Calculator

(2 marks)

The pictogram shows information about books sold.



Key:  = 8 books

What was the total number of books sold across all recorded times?

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

The pictogram shows information about pizzas sold.



Key:  = 8 pizzas

On Wednesday and Thursday, a total of 32 pizzas were sold.

The number of pizzas sold on Thursday was 3 times the number sold on Wednesday.

Calculate the number of pizzas sold on Thursday.

WORKING OUT SPACE

Answer:

Fractions of an Amount

EDEXCEL GCSE EXAM PRACTICE

Total: 12 marks

Fractions of an Amount — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(2 marks)

Find $\frac{1}{3}$ of 12

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(2 marks)

Find $\frac{4}{6}$ of 30

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(2 marks)

Work out $\frac{2}{3}$ of 15

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Work out $\frac{2}{4}$ of 44

WORKING OUT SPACE

Answer:**Question 5** **Calculator****(2 marks)**

There are 1096 spectators at a football stadium.

392 of the spectators are men.

332 of the spectators are women.

The rest are children.

$\frac{1}{6}$ of the children are boys.

Work out how many girls are at the stadium.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(2 marks)**

Callum is reading a novel.

$\frac{3}{4}$ of the pages in the novel is 27 pages.

Work out the total number of pages in the novel.

WORKING OUT SPACE

Answer:

FDP Conversions

EDEXCEL GCSE EXAM PRACTICE

Total: 6 marks

FDP Conversions — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Write $\frac{9}{10}$ as a decimal.

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Write 0.02 as a percentage.

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Write $\frac{1}{5}$ as a percentage.

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(1 mark)**

Write 12% as a fraction in its simplest form.

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(1 mark)**

Write 0.03 as a fraction.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(1 mark)**

Write 43.5% as a decimal.

WORKING OUT SPACE

Answer:

Intro to Algebra

EDEXCEL GCSE EXAM PRACTICE**Total: 10 marks**

Intro to Algebra — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ **Non-Calculator****(1 mark)**

Write $6 \times a$ without the multiplication sign.

WORKING OUT SPACE

Answer:

Question 2 ☒ **Non-Calculator****(2 marks)**

Simplify $-3x^2 + 4x - 7x^2 + x$

WORKING OUT SPACE

Answer:

Question 3 ☒ **Non-Calculator****(2 marks)**

Simplify $-3x^2y^2 \times -6x^2y$

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

If $x = -3$, work out the value of $4x - 9$

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(1 mark)**

Tariq is n years old. Elena is 9 years younger than Tariq. Write an expression for Elena's age.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(2 marks)**

$$s = ut + \frac{1}{2}at^2$$

$$u = 2$$

$$a = -4$$

$$t = 3$$

Work out the value of s .

WORKING OUT SPACE

Answer:

Function Machines

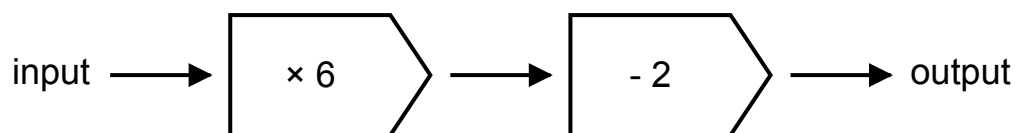
EDEXCEL GCSE EXAM PRACTICE**Total: 12 marks**

Function Machines — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ✎ Non-Calculator**(2 marks)**

Here is a number machine.

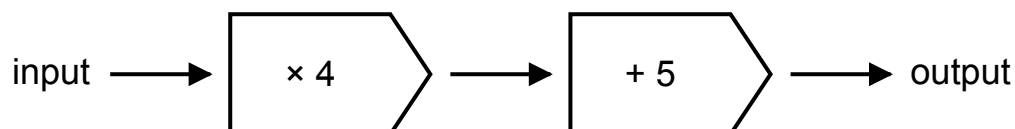


Find the output when the input is 5.

WORKING OUT SPACE

Answer:**Question 2** ✎ Non-Calculator**(2 marks)**

Here is a number machine.



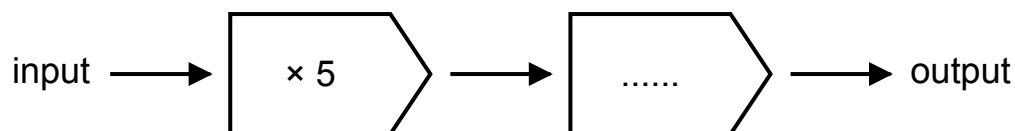
Find the input when the output is 45.

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

Here is a number machine.



When the input is 3 the output is 10.

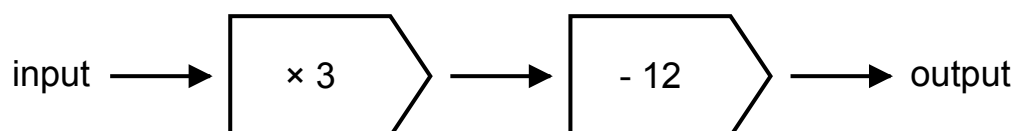
Find the missing operation (with its number).

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Here is a number machine.



Find the value of the input for which the input and the output have the same value.

WORKING OUT SPACE

Answer:

Question 5**Calculator****(2 marks)**

A rule to calculate an e-bike rental charge is:

£2.00 plus £1.80 per mile

An e-bike rental costs £27.20.

Work out the distance cycled in miles.

WORKING OUT SPACE

Answer:

Question 6**Calculator****(2 marks)**

A rule to change from temperature measured in degrees Celsius ($^{\circ}\text{C}$) to degrees Fahrenheit ($^{\circ}\text{F}$) is

Multiply the temperature in degrees Celsius by 1.8 then add 32

The temperature is 16°C .

Work out the temperature in Fahrenheit.

WORKING OUT SPACE

Answer:

Linear Equations

EDEXCEL GCSE EXAM PRACTICE

Total: 10 marks

Linear Equations — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Solve $x + 10 = 20$

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(1 mark)

Solve $5a = 20$

WORKING OUT SPACE

Answer:

Question 3 ☒ Non-Calculator

(1 mark)

Solve $\frac{p}{6} = 7$

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**Solve $4x - 6 = 30$

WORKING OUT SPACE

Answer:

Question 5 **Non-Calculator****(2 marks)**Solve $4n + 7 = 47$

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(3 marks)**Solve $\frac{2x}{3} - 5 = 1$

WORKING OUT SPACE

Answer:

Coordinates & Midpoints

EDEXCEL GCSE EXAM PRACTICE

Total: 10 marks

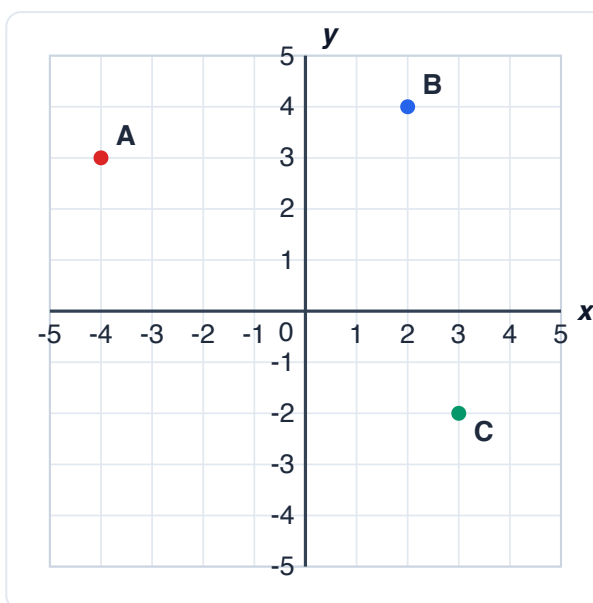
Coordinates & Midpoints — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Point A is plotted on the coordinate grid below.



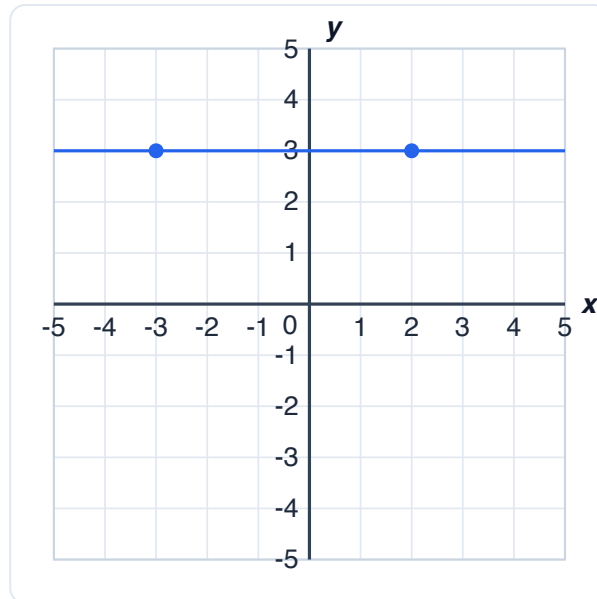
Write down the coordinates of point A .

WORKING OUT SPACE

Answer:

Question 2 **Non-Calculator****(1 mark)**

Write down the equation of the straight line shown in blue on the coordinate grid below.

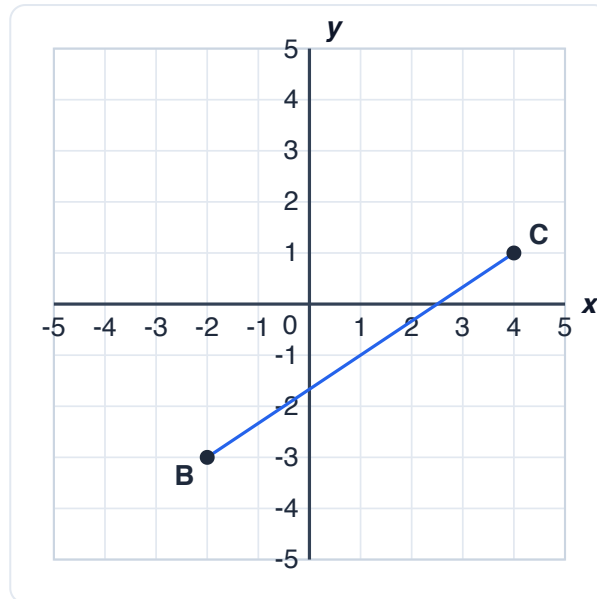


WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

Line segment BC is drawn on the coordinate grid below.



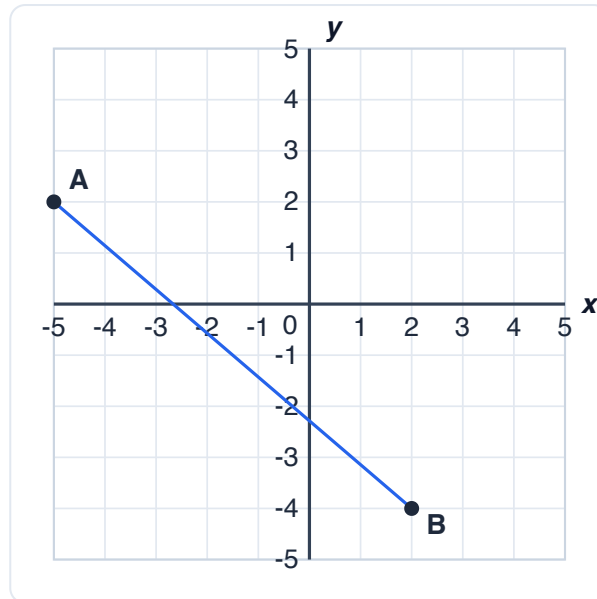
Find the coordinates of the midpoint of BC .

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Line segment AB is plotted on the coordinate grid below.



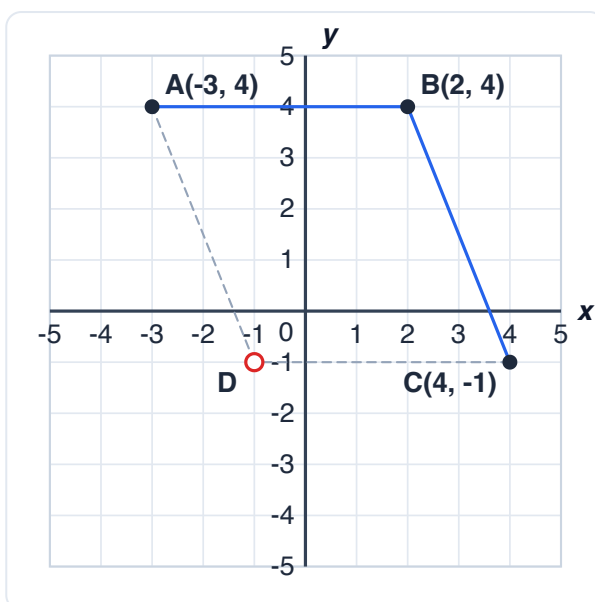
Find the coordinates of the midpoint of AB .

WORKING OUT SPACE

Answer:

Question 5 Non-Calculator**(2 marks)**

Three vertices $A(-3, 4)$, $B(2, 4)$, and $C(4, -1)$ of a parallelogram $ABCD$ are plotted on the coordinate grid below.



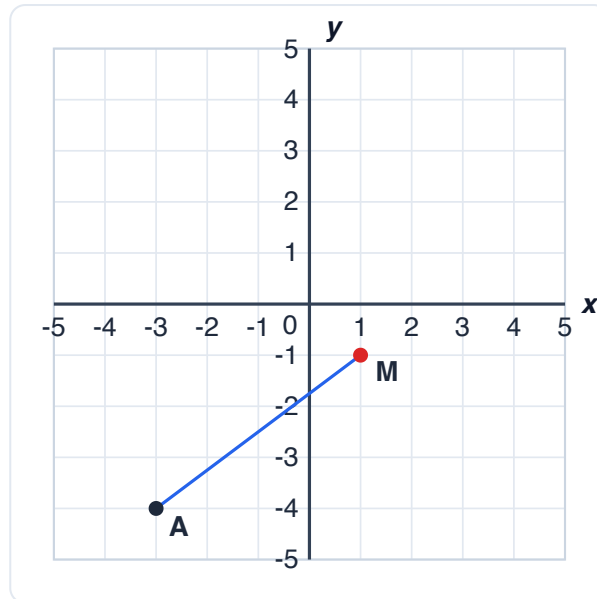
Find the coordinates of vertex D .

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

Point A and the midpoint M of line segment AB are plotted on the coordinate grid below.



Find the coordinates of point B .

WORKING OUT SPACE

Answer:

Angles in Lines, Triangles & Quadrilaterals

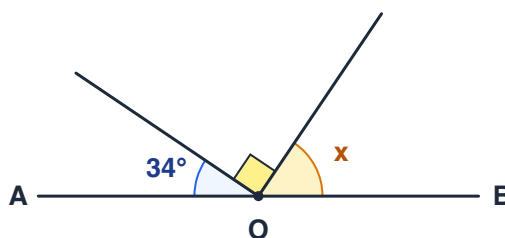
EDEXCEL GCSE EXAM PRACTICE**Total: 12 marks**

Angles in Lines, Triangles & Quadrilaterals — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ **Non-Calculator****(2 marks)**

AOB is a straight line.



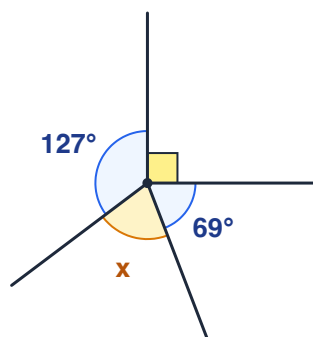
Work out the size of angle x .

WORKING OUT SPACE

Answer:

Question 2 Non-Calculator**(2 marks)**

Four straight rays meet at a point.



Work out the size of angle x .

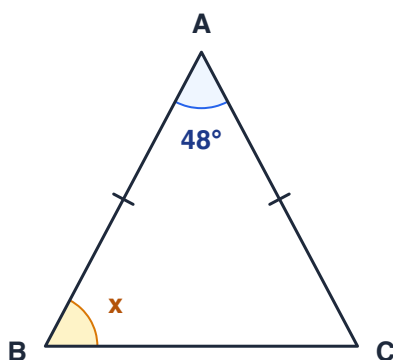
WORKING OUT SPACE

Answer:

Question 3 Non-Calculator**(2 marks)**

Triangle ABC is isosceles with $AB = AC$.

Angle $BAC = 48^\circ$.



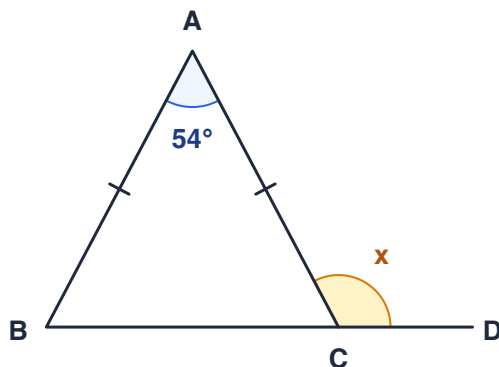
Work out the size of angle x .

WORKING OUT SPACE

Answer:

Question 4 ✎ Non-Calculator**(2 marks)**

ABC is an isosceles triangle with $AB = AC$, and BCD is a straight line.
Angle $BAC = 54^\circ$.



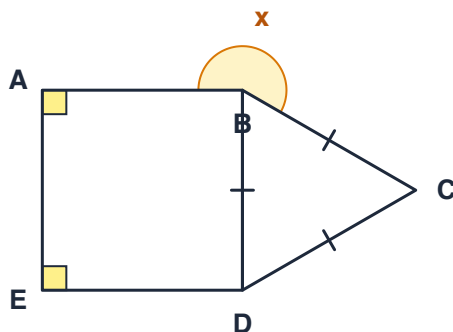
Work out the size of exterior angle x .

WORKING OUT SPACE

Answer:

Question 5 ✎ Non-Calculator**(2 marks)**

$ABDE$ is a square and BCD is an equilateral triangle.



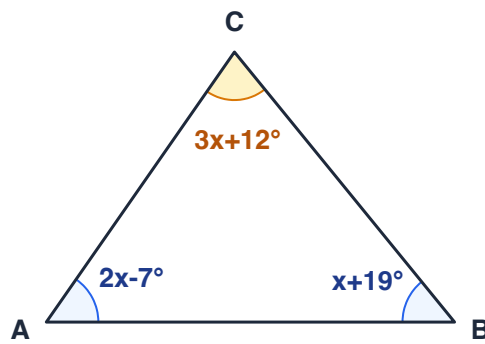
Work out the size of the reflex angle ABC (x).

WORKING OUT SPACE

Answer:

Question 6 **Calculator****(2 marks)**

The three angles in triangle ABC are $(3x + 12)^\circ$, $(2x - 7)^\circ$, and $(x + 19)^\circ$.



Work out the value of x .

WORKING OUT SPACE

Answer:

Area and Perimeter

EDEXCEL GCSE EXAM PRACTICE

Total: 15 marks

Area and Perimeter — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

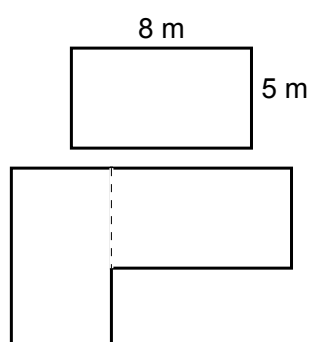
Question 1 ☒ Non-Calculator

(3 marks)

A single rectangular tile is shown at the top of the diagram.

Two identical tiles are joined together to form the L-shaped figure below.

Calculate the total perimeter of this L-shaped figure.



WORKING OUT SPACE

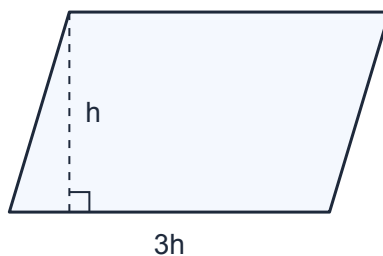
Answer:

Question 2 **Calculator****(3 marks)**

The base of a parallelogram is three times its perpendicular height h .

The area of the parallelogram is 108 cm^2 .

Find the base of the parallelogram.



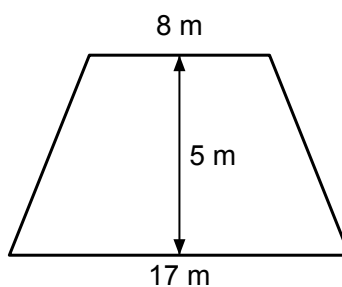
WORKING OUT SPACE

Answer:

Question 3 **Calculator****(2 marks)**

The diagram shows a paved patio in the shape of a trapezium.

Calculate the area of the patio.

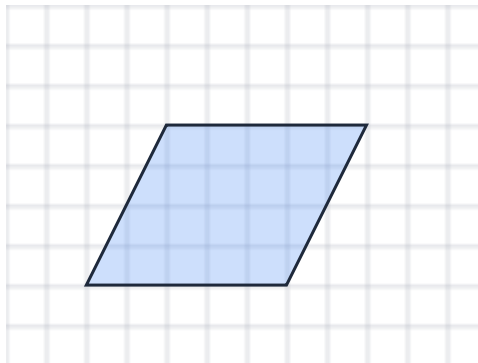


WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

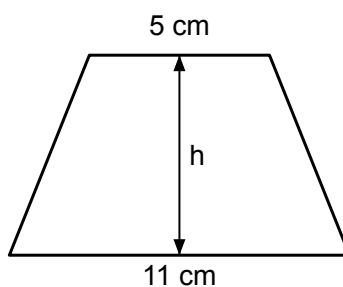
The diagram shows a parallelogram on a centimetre grid.
Find the area of the parallelogram.



WORKING OUT SPACE

Answer:**Question 5** **Calculator****(3 marks)**

The diagram shows a trapezium with an area of 88 cm^2 and a perpendicular height h .
Find the value of h .

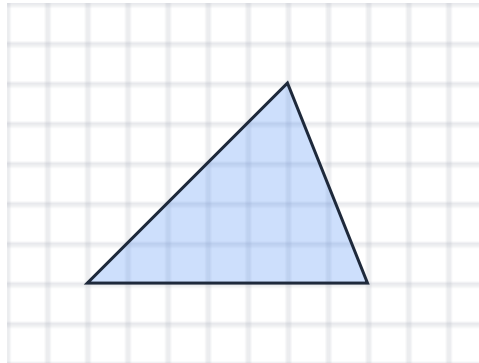


WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

The diagram shows a triangle on a centimetre grid.
Find the area of the triangle.



WORKING OUT SPACE

Answer:

Probability Scale & Basics

EDEXCEL GCSE EXAM PRACTICE

Total: 10 marks

Probability Scale & Basics — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 **Non-Calculator****(1 mark)**

There are 14 marbles in a bag. 7 are Red and 7 are Blue.
One marble is selected at random.

What number on the probability scale from 0 to 1 represents the probability that the marble is Red?

WORKING OUT SPACE

Answer:

Question 2 **Non-Calculator****(2 marks)**

Here is a list of 8 numbers on cards:

1, 1, 7, 2, 1, 9, 9, 1

One card is chosen at random. Find the probability that the number is 1.

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

The probability of Ava scoring a goal is 0.74.

Work out the probability that Ava does **not** score.

WORKING OUT SPACE

Answer:**Question 4** **Non-Calculator****(3 marks)**

There are orange, pink, yellow and blue counters in a bag.

A counter is picked at random.

The table shows the probabilities for three of the colours.

Colour	Orange	Pink	Yellow	Blue
Probability	0.1	0.35	0.15	?

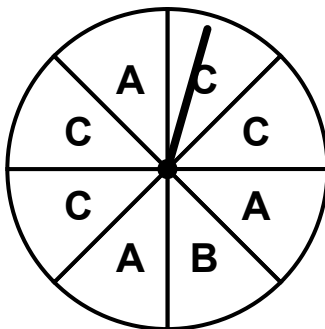
Work out the probability that the counter will be Blue.

WORKING OUT SPACE

Answer:

Question 5 **Non-Calculator****(1 mark)**

Zain spins a fair 8-sided spinner.



Write down the probability that the spinner lands on **B**.

WORKING OUT SPACE

Answer:**Question 6** **Non-Calculator****(1 mark)**

Mia spins a fair 4-sided spinner.
Every single section is coloured Red.

On the probability scale from 0 to 1, what number represents the probability that the spinner lands on Red?

WORKING OUT SPACE

Answer:

Systematic Listing

EDEXCEL GCSE EXAM PRACTICE

Total: 15 marks

Systematic Listing — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 **Non-Calculator****(3 marks)**

Sophie is going to have a meal.
She can choose one starter and one main from the menu.

There are 6 starters and 7 mains to choose from.

Work out the total number of possible meal combinations Sophie can choose.

WORKING OUT SPACE

Answer:

Question 2 **Non-Calculator****(3 marks)**

Callum is going to roll a 6-sided dice and flip a coin.
The dice can land on 1, 2, 3, 4, 5 or 6.
The coin can land on heads (H) or tails (T).

List all the possible outcomes.

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(3 marks)**

Here are three number cards:

4, 3, 9

Write down all the possible three-digit numbers that can be made using each card once.

WORKING OUT SPACE

Answer:**Question 4** **Non-Calculator****(2 marks)**

There are three cards in box A and three cards in box B.

Box A: 6, 9, 3

Box B: 8, 4, 5

Hassan takes a card from box A and a card from box B.

He multiplies the numbers to get a total score.

Work out the probability that the total score is an odd number.

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(2 marks)**

Three teams, Ajax, Chelsea, Barcelona, are in a competition.

At the end of the competition, one team will be 1st, one will be 2nd, and one will be 3rd.

List all the possible outcomes of the competition.

Use the first letter of each team (e.g. ABC, ACB)

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(2 marks)**

Four teams, Dortmund, Ajax, Barcelona, Fulham, are going to play a match against each other in a competition.

Each team will play every other team once.

Write down all the matches that will take place.

Use the first letter of each team (e.g. AB, AC)

WORKING OUT SPACE

Answer:

Averages

EDEXCEL GCSE EXAM PRACTICE

Total: 15 marks

Averages — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(2 marks)

Here is a list of 5 numbers:

3, 19, 3, 8, 15

Find the **mode**.

WORKING OUT SPACE

Answer:

Question 2 ☒ Non-Calculator

(2 marks)

Here is a list of 5 numbers:

17, 6, 14, 11, 6

Calculate the **median**.

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(3 marks)**

Here is a list of 6 numbers. Two are hidden.

6, ?, 5, 8, ?, 9

The mode of the numbers is 9.

The mean of the numbers is 8.

Work out the two numbers that are hidden. (Separate your answers with a comma, e.g. 2, 5)

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(2 marks)**

Here is a list of 5 numbers. One is hidden.

?, 13, 9, 11, 5

The mean of the numbers is 12.

Find the value of the hidden number.

WORKING OUT SPACE

Answer:

Question 5 **Calculator****(3 marks)**

The mean of 8 numbers is 32.

The mean of 4 of these numbers is 14.

Work out the mean of the other 4 numbers.

WORKING OUT SPACE

Answer:**Question 6** **Calculator****(3 marks)**

Priya jogged a mean distance of 10.9 km over 7 days.

The next day Priya jogged 12.8 km.

Find her new mean distance over the 8 days. Give your answer correct to 2 decimal places.

WORKING OUT SPACE

Answer:

Bar Charts

EDEXCEL GCSE EXAM PRACTICE

Total: 10 marks

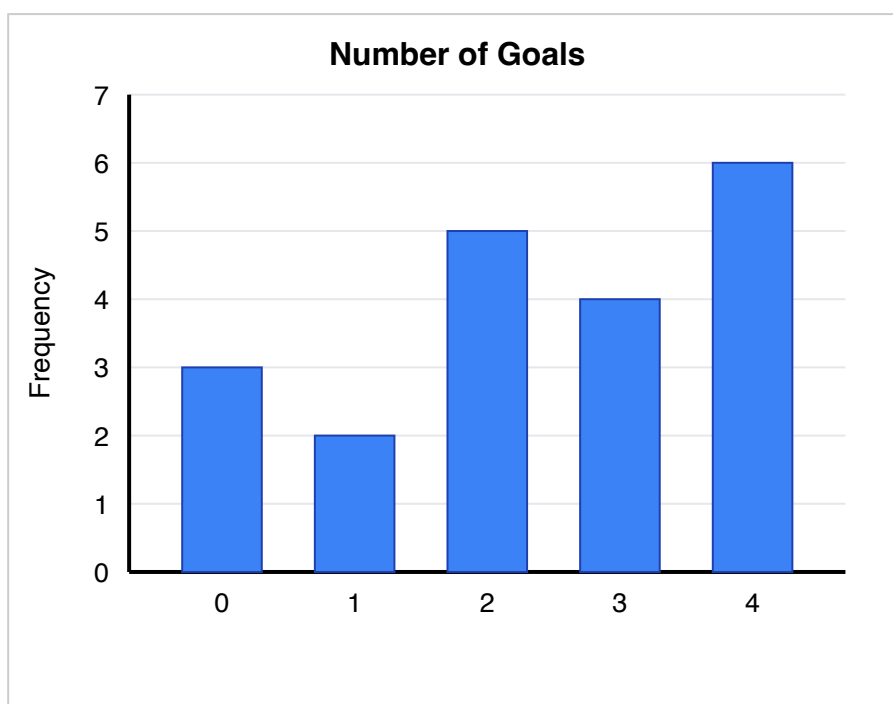
Bar Charts — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(1 mark)

Here is a bar chart showing number of goals.



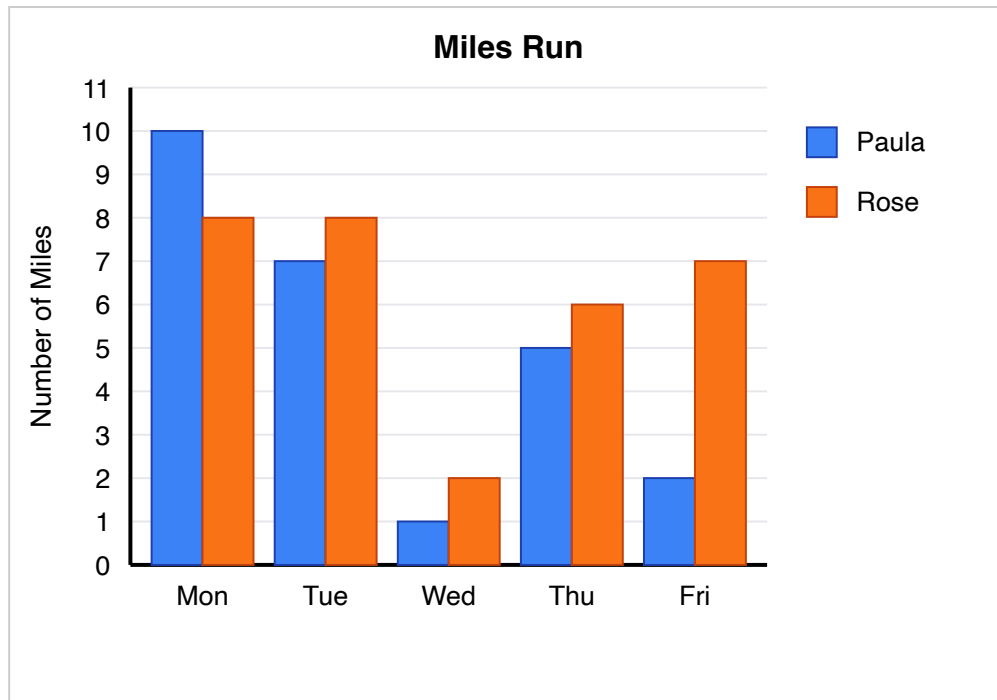
How many more were recorded for '2' than '1'?

WORKING OUT SPACE

Answer:

Question 2 **Non-Calculator****(2 marks)**

Here is a dual bar chart showing miles run.



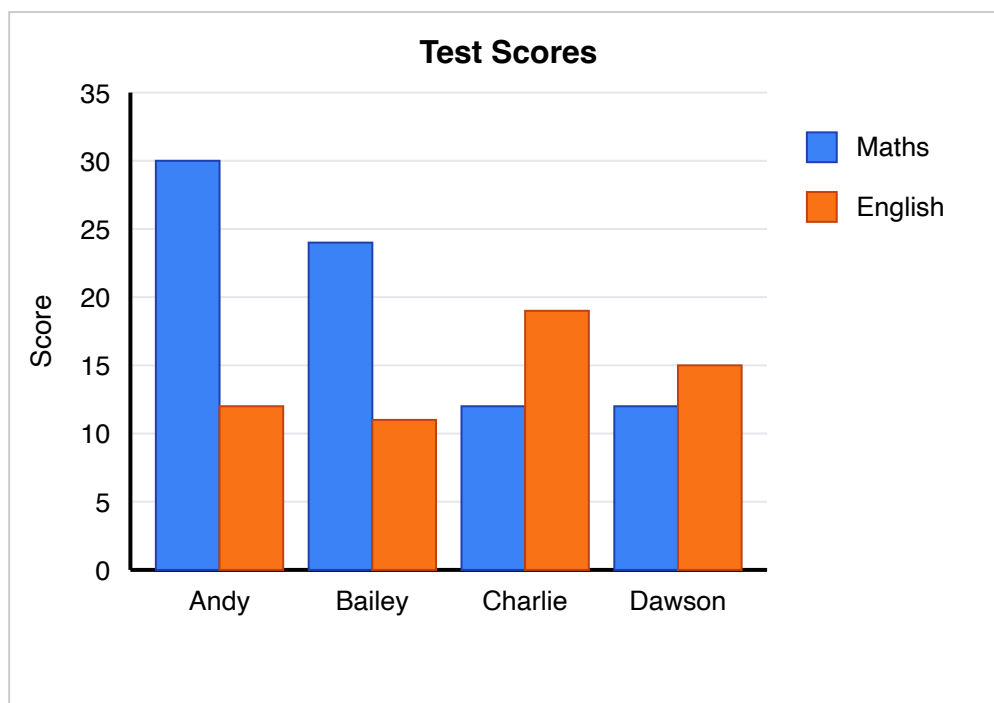
Work out the total number of miles for Paula across all categories.

WORKING OUT SPACE

Answer:

Question 3 ✎ Non-Calculator**(2 marks)**

Here is a dual bar chart showing test scores.



What is the difference between Maths and English for 'Bailey'?

WORKING OUT SPACE

Answer:

Question 4 ✎ Non-Calculator**(1 mark)**

Zain records the colours of the helmets worn by cyclists on a trail. Here is the list:

Red Black Silver Blue Red Black White White White White
Black Black Red Black White White Silver White Blue White
Red White Silver White Blue

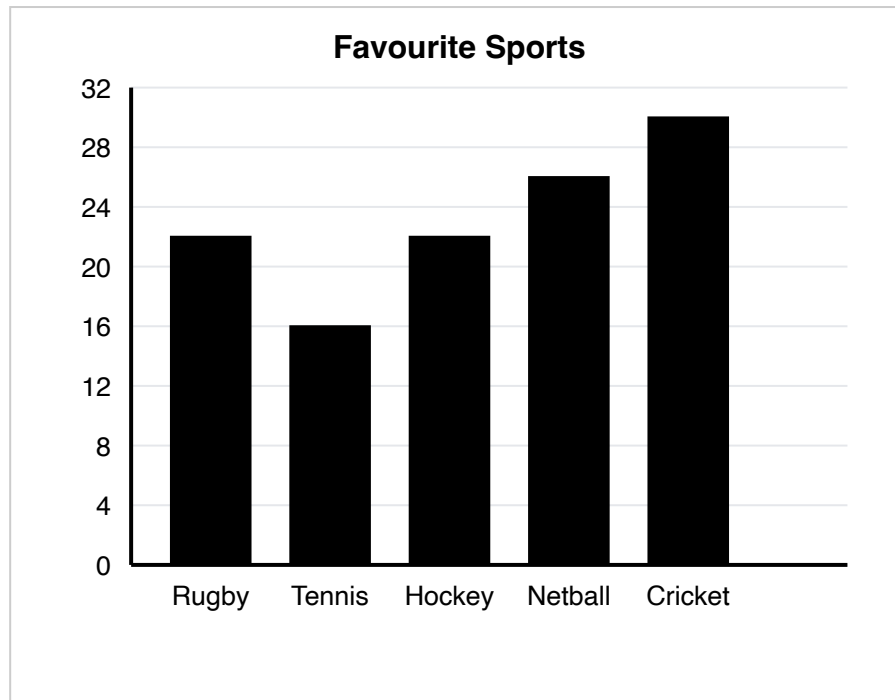
If you were to complete a tally chart for this information, what would be the frequency for **Blue**?

WORKING OUT SPACE

Answer:

Question 5 **Non-Calculator****(1 mark)**

Here is a bar chart showing the favourite sports chosen by a group of students.



Look carefully at the vertical axis (the y-axis).

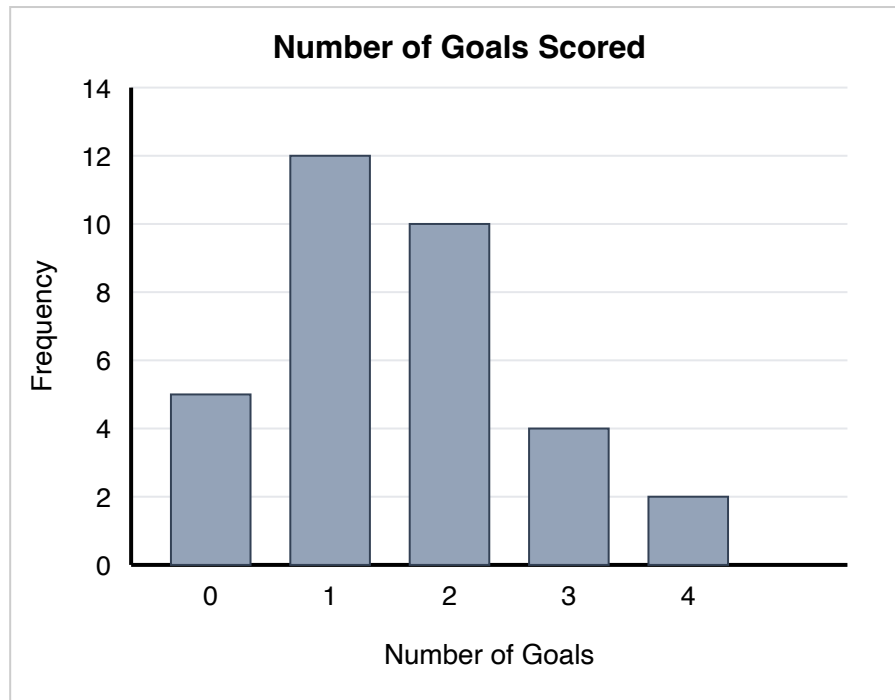
Write down the label word that is completely missing from this axis.

WORKING OUT SPACE

Answer:

Question 6 **Calculator****(3 marks)**

Here is a bar chart showing the number of goals scored by a football team.



Work out the **total number of goals** scored in total by the team.

WORKING OUT SPACE

Answer:

Pie Charts

EDEXCEL GCSE EXAM PRACTICE

Total: 17 marks

Pie Charts — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 **Calculator****(2 marks)**

A pie chart shows information about the money Ava spent last month.
The sector for Rent has an angle of 72° .

Ava spent £1080 in total last month.
How much did Ava spend on Rent?

WORKING OUT SPACE

Answer:

Question 2 **Calculator****(3 marks)**

The table shows information about the languages studied of some students.

Category	Frequency
French	11
German	14
Spanish	5
Latin	60

Calculate the angle of the sector for **Latin** in a pie chart.

WORKING OUT SPACE

Answer:

Question 3**Calculator****(2 marks)**

The table shows some information about the favourite subject of some people.

Favourite subject	Frequency	Angle
Maths	?	110°
English	17	85°
Science		
History	16	?
Total	72	360°

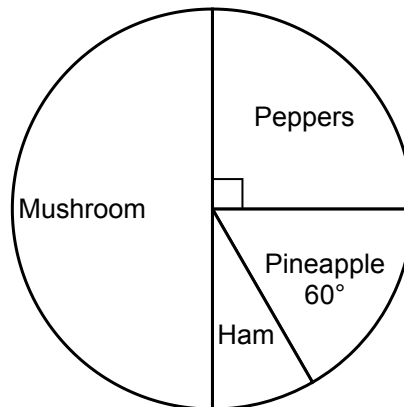
Work out the missing frequency for **Maths**.

WORKING OUT SPACE

Answer:

Question 4 **Non-Calculator****(3 marks)**

The pie chart shows information about the favourite pizza toppings of a group of students.



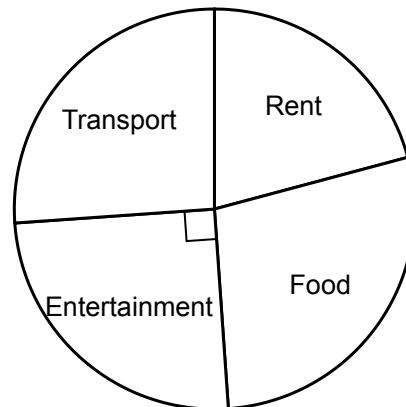
The frequency for Peppers is 9.
Calculate the frequency for Ham.

WORKING OUT SPACE

Answer:

Question 5 **Calculator****(2 marks)**

The pie chart shows information about the money Fiona spent last month.



Fiona spent £480 on Entertainment.
How much did Fiona spend in total?

WORKING OUT SPACE

Answer:

Question 6

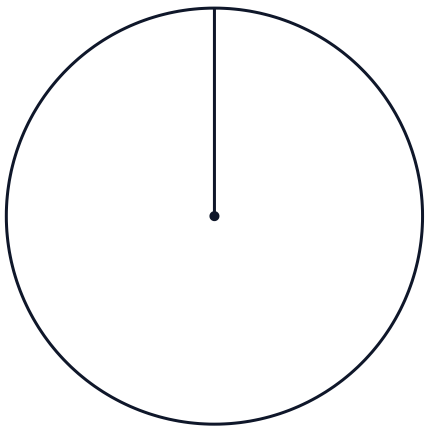
Calculator

(5 marks)

The table shows information about how 72 students travel to school.

Method of travel	Frequency	Angle
Walk	28	
Bus	18	
Car	16	
Cycle	10	
Total	72	360°

Complete the table and draw an accurate pie chart for this information on the circle below.



ANGLE WORKING OUT SPACE

Stem and Leaf Diagrams

EDEXCEL GCSE EXAM PRACTICE

Total: 13 marks

Stem and Leaf Diagrams — Practice Questions

Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ☒ Non-Calculator

(2 marks)

Here is a stem and leaf diagram showing the data for some people.

1		2 6 7
2		2 2 3 3 7
3		0 3 5 9
4		2 4 4 8 8 9 9

Key: 1 | 2 = 12 years old

Work out the **range**.

WORKING OUT SPACE

Answer:

Question 2**Calculator****(2 marks)**

Here is a stem and leaf diagram showing the data for some people.

3	0 1 3
4	0 0 1 2 4 6
5	6 7 8
6	1 1 3 3 4 5 7 8

Key: 3 | 0 = 30 years old

Work out the **median**.

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

Here is a stem and leaf diagram showing the career appearances made by 22 footballers.

6		1 5 6 8
7		0 4 6 8
8		0 3 9 9
9		0 1 3 5 6
10		4 5 5 6 8

Key: 6 | 1 = 61 appearances

One of the footballers is selected at random.

Find the probability that this footballer has made **more than 70** appearances. Give your answer as a fraction.

WORKING OUT SPACE

Answer:

Question 4 ✎ Non-Calculator**(2 marks)**

Here is a stem and leaf diagram showing the data for 22 students in a test.

6		1 1 2 8 8 9
7		2 3 5 7
8		0 2 3 5 8 8
9		1 4 6
10		2 3 9

Key: 6 | 1 = 61 marks

One of the students is selected at random.

Find the probability that their value is **less than 100**. Give your answer as a fraction.

WORKING OUT SPACE

Answer:

Question 5 ✎ Non-Calculator**(2 marks)**

Here are the heights, in cm, of 10 people in a stem and leaf diagram.

13		0 1 2 3
15		0 0 0 2 4 4

Key: 13 | 0 = 130 cm

Work out the **median** height.

WORKING OUT SPACE

Answer:

Question 6**Non-Calculator****(3 marks)**

Here are the ages, in years, of 15 teachers at a school.

34 21 45 28 39 52 24 31
48 34 26 50 42 37 29

Draw an ordered stem and leaf diagram for this information.

You must include a key.

ORDERED STEM-AND-LEAF DIAGRAM & KEY

Frequency Polygons

EDEXCEL GCSE EXAM PRACTICE

Total: 12 marks

Frequency Polygons — Practice Questions

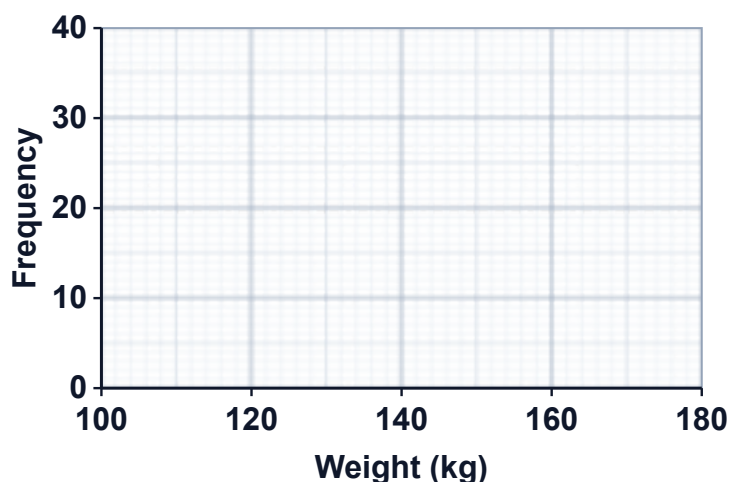
Check the Calculator or Non-Calculator label on each question before you start. Show your working clearly in the box.

Question 1 ✎ Non-Calculator

(2 marks)

The table shows information about weight (kg).

Weight (kg)	Frequency
$100 < x \leq 120$	20
$120 < x \leq 140$	10
$140 < x \leq 160$	15
$160 < x \leq 180$	7



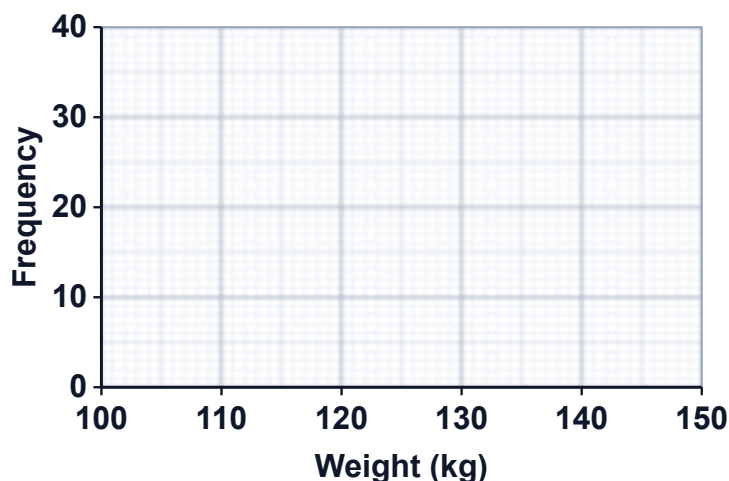
On the grid, draw a frequency polygon for this information.

Question 2 ✎ Non-Calculator

(2 marks)

The table shows information about weight (kg).

Weight (kg)	Frequency
$100 < x \leq 110$	12
$110 < x \leq 120$	21
$120 < x \leq 130$	24
$130 < x \leq 140$	24
$140 < x \leq 150$	23

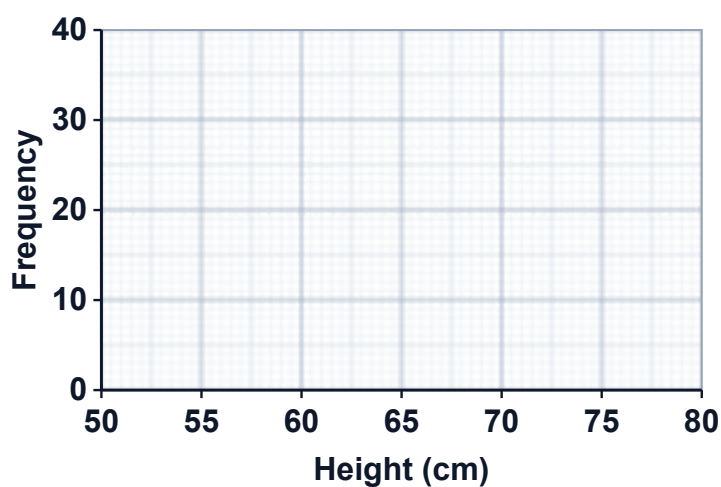


On the grid, draw a frequency polygon for this information.

Question 3 ✎ Non-Calculator**(2 marks)**

The table shows information about height (cm).

Height (cm)	Frequency
$50 < x \leq 55$	17
$55 < x \leq 60$	29
$60 < x \leq 65$	2
$65 < x \leq 70$	21
$70 < x \leq 75$	27
$75 < x \leq 80$	35

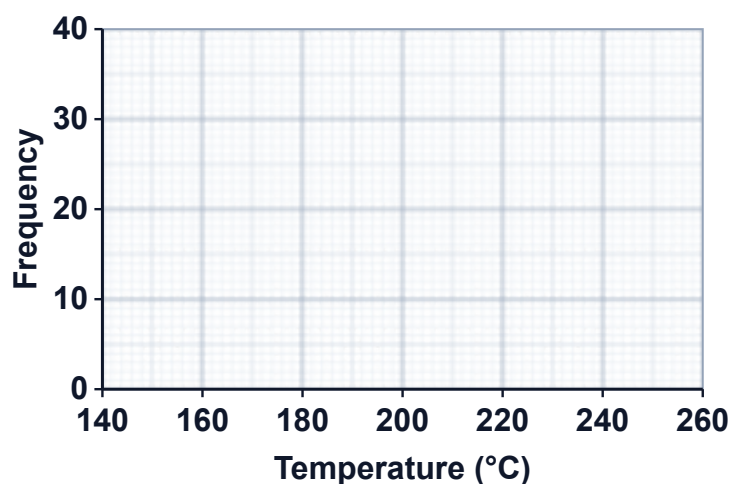


On the grid, draw a frequency polygon for this information.

Question 4 ✎ Non-Calculator**(2 marks)**

The table shows information about temperature ($^{\circ}\text{C}$).

Temperature ($^{\circ}\text{C}$)	Frequency
$140 < x \leq 160$	29
$160 < x \leq 180$	16
$180 < x \leq 200$	35
$200 < x \leq 220$	20
$220 < x \leq 240$	9
$240 < x \leq 260$	10

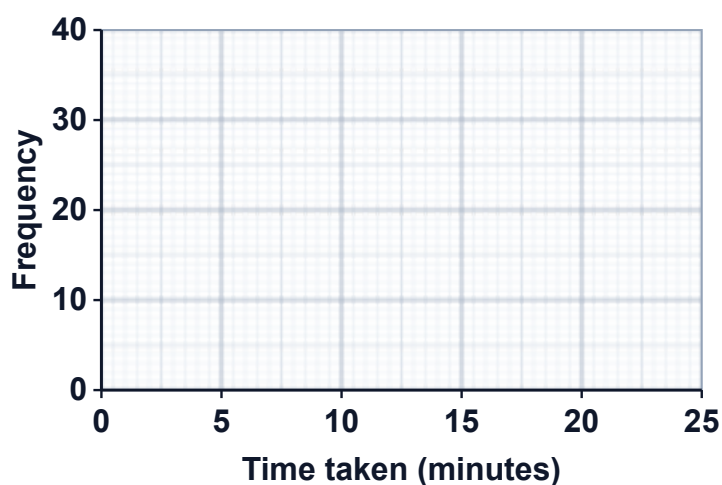


On the grid, draw a frequency polygon for this information.

Question 5 ✎ Non-Calculator**(2 marks)**

The table shows information about time taken (minutes).

Time taken (minutes)	Frequency
$0 < x \leq 5$	19
$5 < x \leq 10$	26
$10 < x \leq 15$	30
$15 < x \leq 20$	28
$20 < x \leq 25$	30

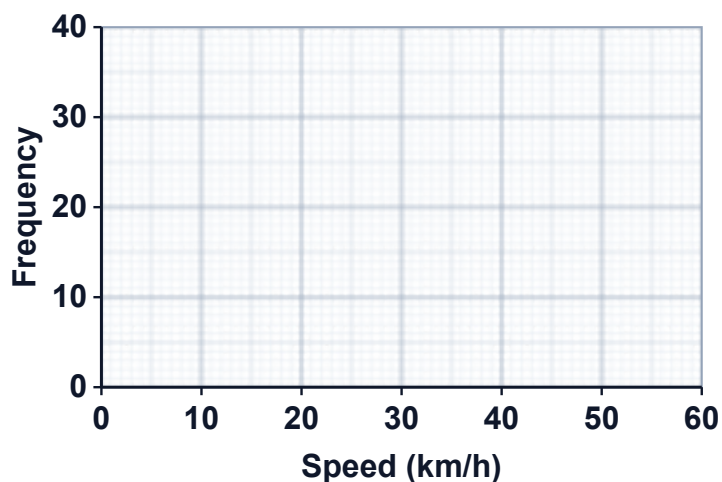


On the grid, draw a frequency polygon for this information.

Question 6 ✎ Non-Calculator**(2 marks)**

The table shows information about speed (km/h).

Speed (km/h)	Frequency
$0 < x \leq 10$	26
$10 < x \leq 20$	13
$20 < x \leq 30$	13
$30 < x \leq 40$	28
$40 < x \leq 50$	28
$50 < x \leq 60$	29



On the grid, draw a frequency polygon for this information.

PAPER 1 STYLE — NON-CALCULATOR MIXED REVIEW

Mixed Review 1 of 2

Mixed Practice Set 1 — Non-Calculator**Total: 22 marks**

Topics are mixed up just like a real Paper 1 exam! Read each question carefully, pick the right method, and show every step without using a calculator.

Question 1 ✍ Non-Calculator**(1 mark)**

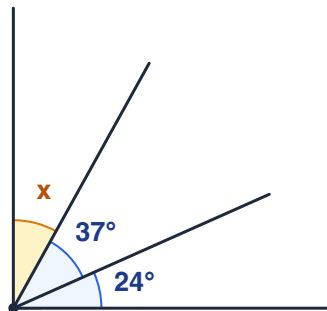
Write these numbers in order of size. Start with the smallest.

0.8, 2.322, 4.2, 5.65, 8.127

WORKING OUT SPACE

Answer:**Question 2** ✍ Non-Calculator**(2 marks)**

A right angle (90°) is split into three smaller acute angles.



Work out the size of angle x .

WORKING OUT SPACE

Answer:

Question 3 **Non-Calculator****(2 marks)**

Work out $\frac{3}{4}$ of 28

WORKING OUT SPACE

Answer:**Question 4** **Non-Calculator****(2 marks)**

Simplify $-7x + 2y - 8x - 6y$

WORKING OUT SPACE

Answer:**Question 5** **Non-Calculator****(1 mark)**

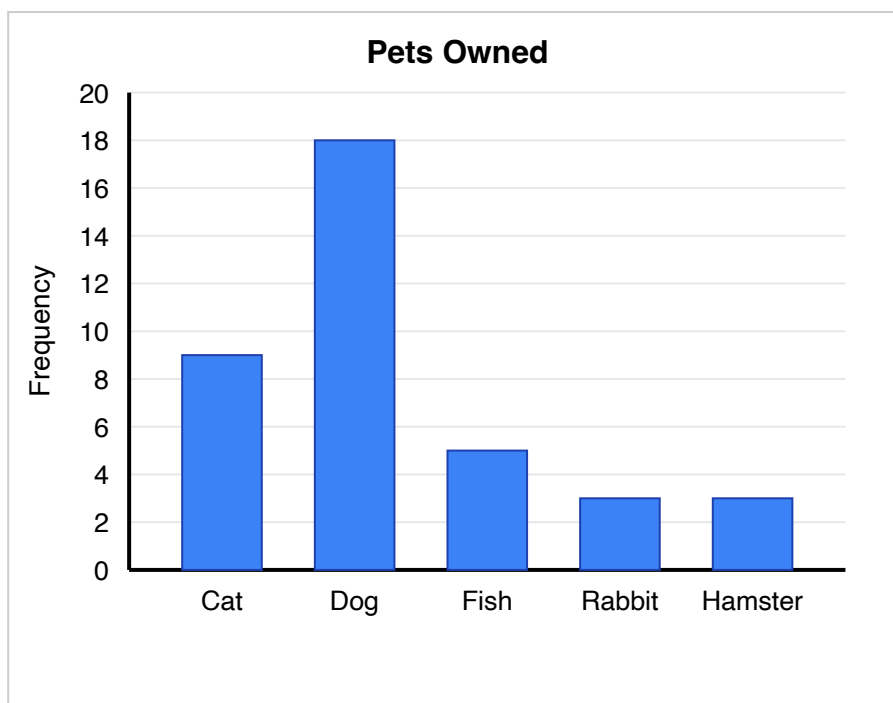
Write 0.04 as a percentage.

WORKING OUT SPACE

Answer:

Question 6 **Non-Calculator****(1 mark)**

Here is a bar chart showing pets owned.



How many more were recorded for 'Dog' than 'Cat'?

WORKING OUT SPACE

Answer:

Question 7 **Non-Calculator****(1 mark)**

Work out:

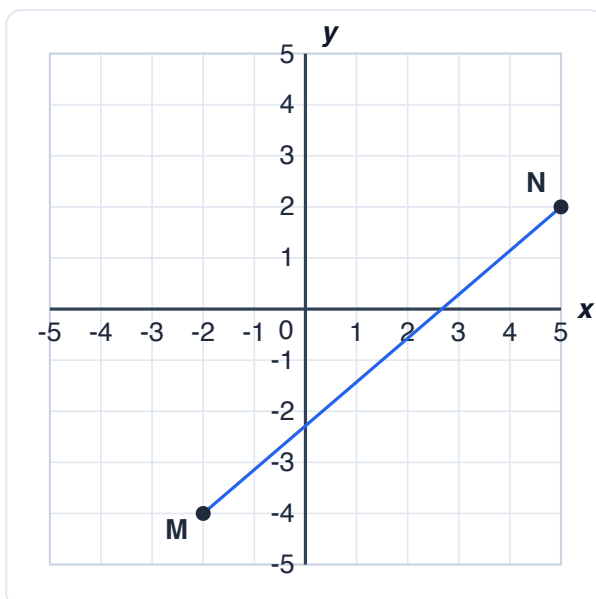
$$-10 \times -6$$

WORKING OUT SPACE

Answer:

Question 8 **Non-Calculator****(2 marks)**

Line segment MN is plotted on the coordinate grid below.



Find the coordinates of the midpoint of MN .

WORKING OUT SPACE

Answer:

Question 9 **Non-Calculator****(1 mark)**

Work out the value of:

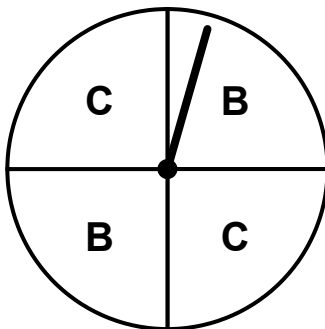
$$10 + 4 \times 7 \div 4$$

WORKING OUT SPACE

Answer:

Question 10 **Non-Calculator****(1 mark)**

Zain spins a fair 4-sided spinner.



Write down the probability that the spinner lands on **C**.

WORKING OUT SPACE

Answer:

Question 11 **Non-Calculator****(2 marks)**

Freya buys 4 peaches costing 40p each.
She pays with a £5 note.

How much change does she receive?

WORKING OUT SPACE

Answer:

Question 12 **Non-Calculator****(1 mark)**

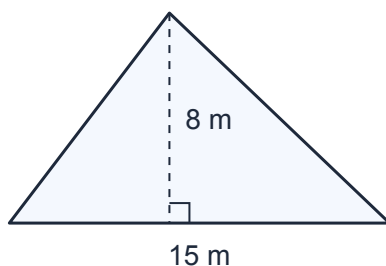
Write down all the factors of 27.

WORKING OUT SPACE

Answer:

Question 13 **Non-Calculator****(2 marks)**

The diagram shows a triangle with a base of 15 m and a perpendicular height of 8 m.
Find the area of the triangle.



WORKING OUT SPACE

Answer:

Question 14 **Non-Calculator****(3 marks)**

Solve $\frac{3x}{4} + 2 = 11$

WORKING OUT SPACE

Answer:

PAPER 2 & 3 STYLE — CALCULATOR MIXED REVIEW

Mixed Review 2 of 2

Mixed Practice Set 2 — Calculator Allowed**Total: 27 marks**

Topics are mixed up just like Paper 2 & Paper 3! You may use a calculator, but you **MUST** still write down the calculations you typed to earn method marks.

Question 1 **Calculator****(2 marks)**

Kieran buys:

1 salad box for £3.43

2 fruit juices for £0.81 each.

He pays with a £10 note.

How much change does he get?

WORKING OUT SPACE

Answer:**Question 2** **Calculator****(1 mark)**

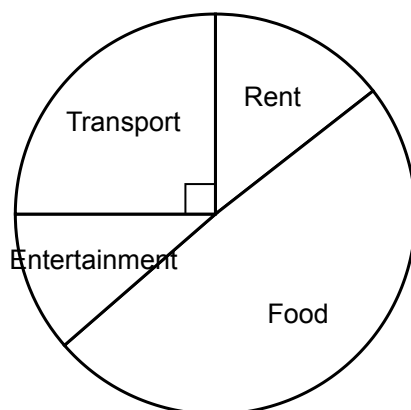
Write 28.7223 correct to 2 decimal places.

WORKING OUT SPACE

Answer:

Question 3 **Calculator****(2 marks)**

The pie chart shows information about the money Fiona spent last month.



Fiona spent £720 on Transport.
How much did Fiona spend in total?

WORKING OUT SPACE

Answer:**Question 4** **Calculator****(2 marks)**

Work out $\frac{5}{9}$ of 288

WORKING OUT SPACE

Answer:

Question 5 Calculator

(2 marks)

Owen boards a ferry at 10:45. The crossing takes $1\frac{3}{4}$ hours, and it then takes him 35 minutes to drive from the port to his hotel.

At what time does Owen reach his hotel? Give your answer in 24-hour clock format.

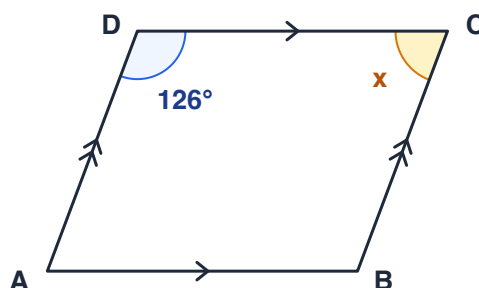
WORKING OUT SPACE

Answer:

Question 6 Calculator

(2 marks)

$ABCD$ is a parallelogram and angle $ADC = 126^\circ$.



Work out the size of angle x .

WORKING OUT SPACE

Answer:

Question 7 Calculator

(2 marks)

If $x = -2$ and $y = 3$, work out the value of $x^2 + 3y^3$

WORKING OUT SPACE

Answer:

Question 8 **Calculator****(1 mark)**

The pictogram gives information about the number of wheels sold.

Mon	
Tue	
Wed	
Thu	

Key:  = 20 wheels

Write down the number of wheels sold on Thu.

WORKING OUT SPACE

Answer:

Question 9 **Calculator****(2 marks)**

A rule to calculate a scooter hire charge is:

£2.00 plus £1.50 per mile

A scooter trip costs £17.00.

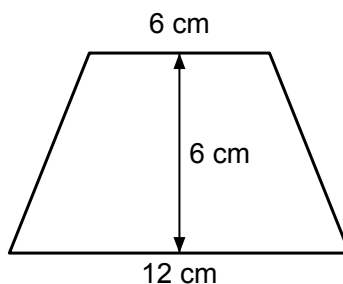
Work out the distance of the trip in miles.

WORKING OUT SPACE

Answer:

Question 10 **Calculator****(2 marks)**

The diagram shows a paved patio in the shape of a trapezium.
Calculate the area of the patio.



WORKING OUT SPACE

Answer:

Question 11 **Calculator****(3 marks)**

The mean of 6 numbers is 34.
The mean of 4 of these numbers is 12.

Work out the mean of the other 2 numbers.

WORKING OUT SPACE

Answer:

Question 12 **Calculator****(2 marks)**

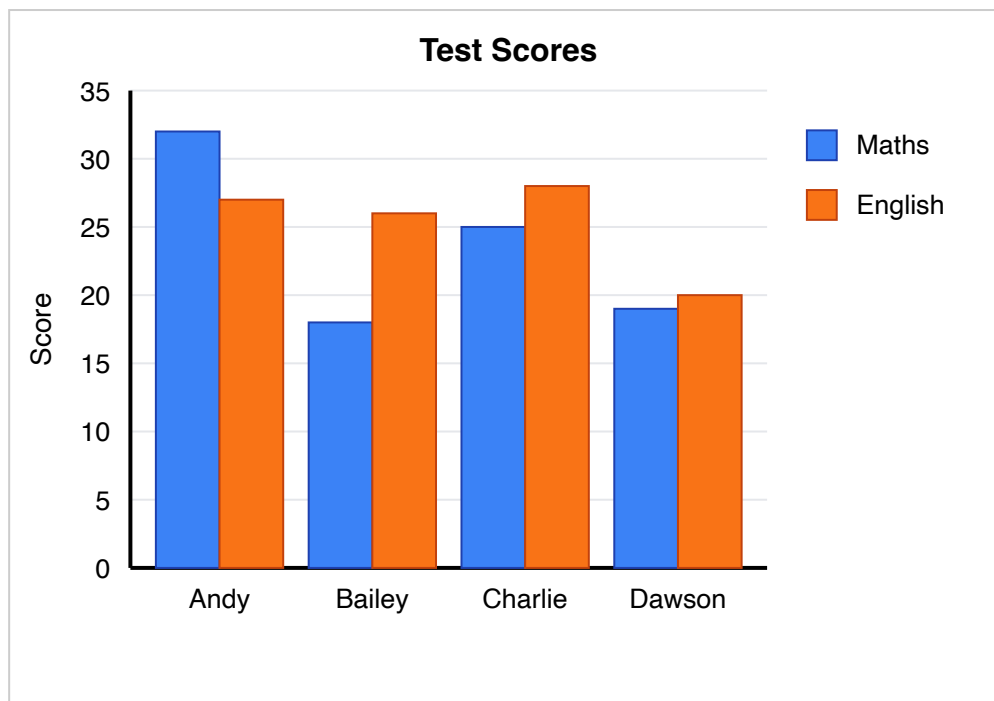
Work out the value of $\sqrt{196} \times \sqrt[3]{27}$.

WORKING OUT SPACE

Answer:

Question 13 **Calculator****(2 marks)**

Here is a dual bar chart showing test scores.



In which category is Maths greater than English? (If there are multiple, name the first one from the left).

WORKING OUT SPACE

Answer:**Question 14** **Calculator****(2 marks)**

Point A has coordinates $(-8, 11)$ and the midpoint of AB is $M(-2, 4)$.
Work out the coordinates of point B .

WORKING OUT SPACE

Answer:

APPENDIX

Answers & Mark Schemes

Complete marking guidance, completed tables/diagrams, and final numerical solutions for all Edexcel GCSE practice questions.

Topic 1: Negative Numbers

Q1:	15	[2m]
Q2:	-3	[1m]
Q3:	10	[2m]
Q4:	-9	[2m]
Q5:	-18	[1m]
Q6:	28	[1m]

Topic 2: Decimals

Q1:	9.36	[2m]
Q2:	29.65	[2m]
Q3:	16.39	[2m]
Q4:	5	[2m]
Q5:	0.12	[2m]
Q6:	11	[2m]

Topic 3: Ordering Decimals

Q1:	0.12	[1m]
Q2:	9.07, 7.9, 4.6, 1.8, 1.071	[1m]
Q3:	0.265, 3.0, 3.1, 6.159, 7.5	[1m]
Q4:	>	[1m]
Q5:	4.8m, 4.3m, 3.763m, 3.53m, 3.501m	[1m]
Q6:	4.75m, 4.5m, 4.42m, 4.17m, 3.67m	[1m]

Topic 4: Rounding

Q1:	7000	[1m]
Q2:	9300	[1m]
Q3:	70.82	[1m]
Q4:	26.0	[1m]
Q5:	26000	[1m]
Q6:	600	[1m]

Topic 5: Money Problems

Q1:	£5.54	[2m]
Q2:	£8.53	[2m]
Q3:	£8.66	[2m]
Q4:	£2.12	[2m]
Q5:	£12.13	[2m]
Q6:	£1.48	[2m]

Topic 6: Time & Timetables

Q1:	240	[2m]
Q2:	7	[2m]
Q3:	105	[2m]
Q4:	17:36	[2m]
Q5:	42	[2m]
Q6:	10:11	[2m]

Topic 7: BIDMAS

Q1:	59	[1m]
Q2:	11	[1m]
Q3:	39	[1m]
Q4:	41	[1m]
Q5:	$7 + 8 \times (4 + 3) = 63$	[1m]
Q6:	$(4 + 4) \times (9 + 7) = 128$	[1m]

Topic 8: Powers & Roots

Q1:	144	[1m]
Q2:	121	[1m]
Q3:	9	[1m]
Q4:	4	[1m]
Q5:	25	[1m]
Q6:	27	[1m]

Topic 9: Factors & Multiples

Q1:	Any two of 1, 2, 3, 5, 6, 10, 15, 30	[1m]
Q2:	Any two multiples of 6 (e.g. 6, 12, 18, ...)	[1m]
Q3:	44	[1m]
Q4:	31, 37	[1m]
Q5:	3, 11 or 7, 7	[1m]
Q6:	3, 15	[1m]

**Topic 10: Fractions
(Simplify, <, =, >)**

Q1:	$\frac{1}{3}$	[1m]
Q2:	14	[1m]
Q3:	>	[1m]
Q4:	$\frac{7}{12}$	[2m]
Q5:	1/5, 3/10, 1/3	[2m]
Q6:	$\frac{1}{14}$	[2m]

Topic 11: Pictograms

Q1:	36	[1m]
Q2:	7	[1m]
Q3:	8	[2m]
Q4:	224	[2m]
Q5:	74	[2m]
Q6:	24	[2m]

Topic 12: Fractions of an Amount

Q1:	4	[2m]
Q2:	20	[2m]
Q3:	10	[2m]
Q4:	22	[2m]
Q5:	310	[2m]
Q6:	36	[2m]

Topic 13: FDP Conversions

Q1:	0.9	[1m]
Q2:	2%	[1m]
Q3:	20%	[1m]
Q4:	$\frac{3}{25}$	[1m]
Q5:	$\frac{3}{100}$	[1m]
Q6:	0.435	[1m]

Topic 14: Intro to Algebra

Q1:	$6a$	[1m]
Q2:	$-10x^2 + 5x$	[2m]
Q3:	$18x^4y^3$	[2m]
Q4:	-21	[2m]
Q5:	$n - 9$	[1m]
Q6:	-12	[2m]

Topic 15: Function Machines

Q1:	28	[2m]
Q2:	10	[2m]
Q3:	- 5	[2m]
Q4:	6	[2m]
Q5:	14	[2m]
Q6:	60.8	[2m]

Topic 16: Linear Equations

Q1:	10	[1m]
Q2:	4	[1m]
Q3:	42	[1m]
Q4:	9	[2m]
Q5:	10	[2m]
Q6:	9	[3m]

Topic 17: Coordinates & Midpoints

Q1:	$(-4, 3)$	[1m]
Q2:	$y = 3$	[1m]
Q3:	$(1, -1)$	[2m]
Q4:	$(-1.5, -1)$	[2m]
Q5:	$(-1, -1)$	[2m]
Q6:	$(5, 2)$	[2m]

Topic 18: Angles in Lines, Triangles & Quadrilaterals

Q1:	56	[2m]
Q2:	74	[2m]
Q3:	66	[2m]
Q4:	117	[2m]
Q5:	210	[2m]
Q6:	26	[2m]

Topic 19: Area and Perimeter

Q1:	42	[3m]
Q2:	18	[3m]
Q3:	62.5	[2m]
Q4:	20	[2m]
Q5:	11	[3m]
Q6:	17.5	[2m]

Topic 20: Probability Scale & Basics

Q1:	$\frac{1}{2}$	[1m]
Q2:	$\frac{1}{2}$	[2m]
Q3:	0.26	[2m]
Q4:	0.4	[3m]
Q5:	$\frac{1}{8}$	[1m]
Q6:	1	[1m]

Topic 21: Systematic Listing

Q1:	42	[3m]
Q2:	1H, 1T, 2H, 2T, 3H, 3T, 4H, 4T, 5H, 5T, 6H, 6T	[3m]
Q3:	349, 394, 439, 493, 934, 943	[3m]
Q4:	$\frac{2}{9}$	[2m]
Q5:	ACB, ABC, CAB, CBA, BAC, BCA	[2m]
Q6:	DA, DB, DF, AB, AF, BF	[2m]

Topic 22: Averages

Q1:	3	[2m]
Q2:	11	[2m]
Q3:	9, 11	[3m]
Q4:	22	[2m]
Q5:	50	[3m]
Q6:	11.14 (or 11.1375)	[3m]

Topic 23: Bar Charts

Q1:	3	[1m]
Q2:	25	[2m]
Q3:	13	[2m]
Q4:	3	[1m]
Q5:	Frequency (or Number of students)	[1m]
Q6:	52	[3m]

Topic 24: Pie Charts

- Q1:

216

[2m]
- Q2:

240

[3m]
- Q3:

22

[2m]
- Q4:

3

[3m]
- Q5:

1920

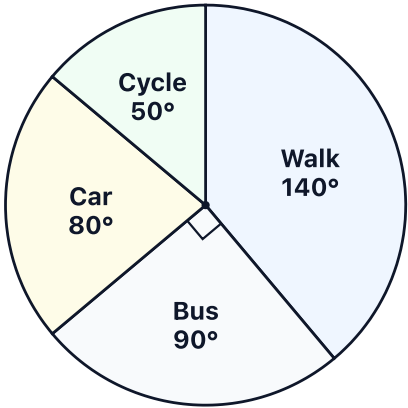
[2m]
- Q6:

Angles: 140°, 90°, 80°, 50° | See completed table & pie chart below

[5m]

Q6 — Completed Table & Pie Chart

Method of travel	Frequency	Angle
Walk	28	140°
Bus	18	90°
Car	16	80°
Cycle	10	50°
Total	72	360°



Topic 25: Stem and Leaf Diagrams

Q1:	37	[2m]
Q2:	56.5	[2m]
Q3:	$\frac{17}{22}$	[2m]
Q4:	$\frac{19}{22}$	[2m]
Q5:	150	[2m]
Q6:	Ordered stem-and-leaf diagram & key — see diagram below	[3m]

Q6 — Completed Ordered Stem & Leaf Diagram

Step 1 — Order the 15 ages from smallest to largest:

21, 24, 26, 28, 29, 31, 34, 34, 37, 39, 42, 45, 48, 50, 52

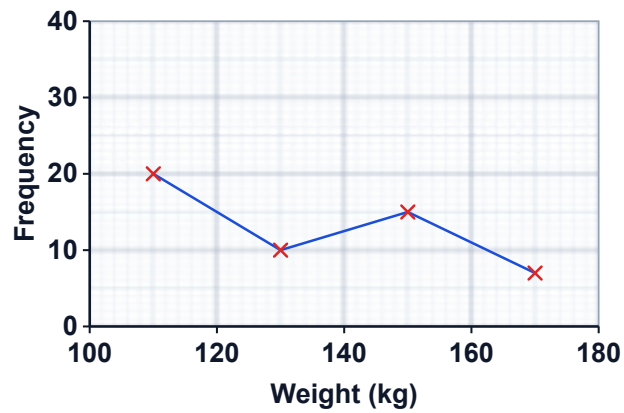
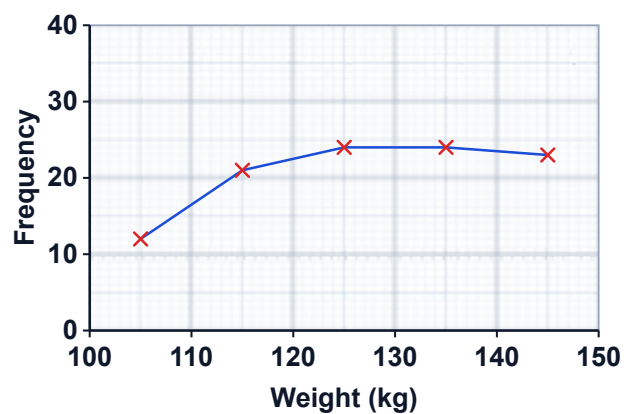
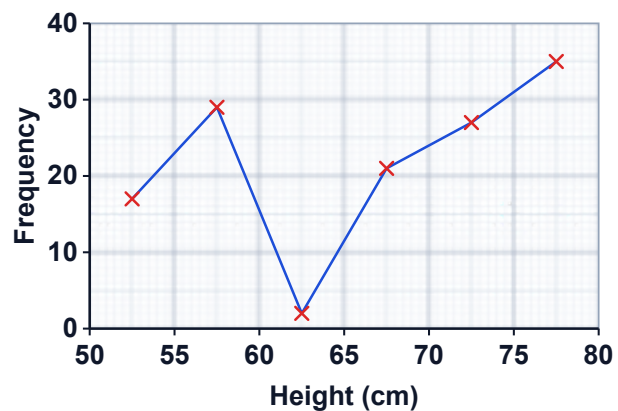
Step 2 — Write the ordered stem and leaf diagram with a key:

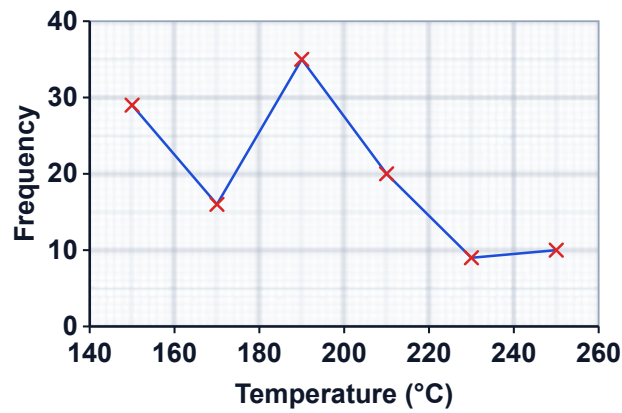
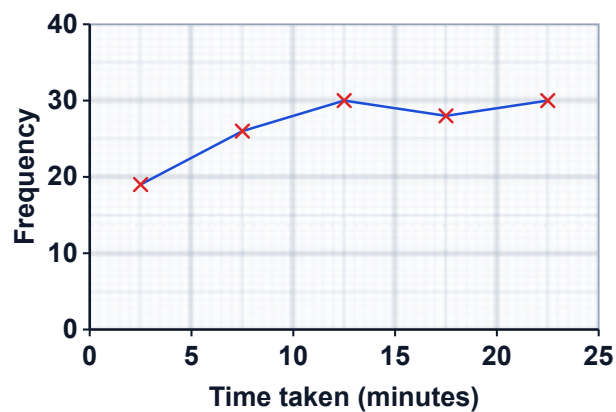
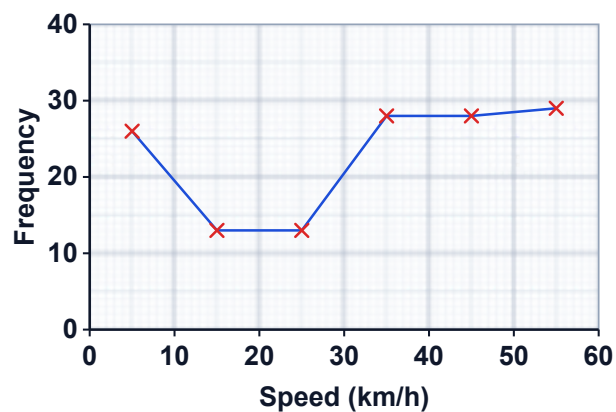
2		1	4	6	8	9
3		1	4	4	7	9
4		2	5	8		
5		0	2			

Key: 2 | 1 means 21 years

Topic 26: Frequency Polygons

Q1:	Points: (110, 20), (130, 10), (150, 15), (170, 7) (see graph below)	[2m]
Q2:	Points: (105, 12), (115, 21), (125, 24), (135, 24), (145, 23) (see graph below)	[2m]
Q3:	Points: (52.5, 17), (57.5, 29), (62.5, 2), (67.5, 21), (72.5, 27), (77.5, 35) (see graph below)	[2m]
Q4:	Points: (150, 29), (170, 16), (190, 35), (210, 20), (230, 9), (250, 10) (see graph below)	[2m]
Q5:	Points: (2.5, 19), (7.5, 26), (12.5, 30), (17.5, 28), (22.5, 30) (see graph below)	[2m]
Q6:	Points: (5, 26), (15, 13), (25, 13), (35, 28), (45, 28), (55, 29) (see graph below)	[2m]

Q1 — Plotted Frequency Polygon**Q2 — Plotted Frequency Polygon****Q3 — Plotted Frequency Polygon**

Q4 — Plotted Frequency Polygon**Q5 — Plotted Frequency Polygon****Q6 — Plotted Frequency Polygon**

Mixed Practice Set 1 — Non-Calculator — Answers & Topic Guide

Q1 (Ordering Decimals):	0.8, 2.322, 4.2, 5.65, 8.127	[1m]	Q2 (Angles in Lines, Triangles & Quadrilaterals):	29	[2m]
Q3 (Fractions of an Amount):	21	[2m]	Q4 (Intro to Algebra):	$-15x - 4y$	[2m]
Q5 (FDP Conversions):	4%	[1m]	Q6 (Bar Charts):	9	[1m]
Q7 (Negative Numbers):	60	[1m]	Q8 (Coordinates & Midpoints):	(1.5, -1)	[2m]
Q9 (BIDMAS):	17	[1m]	Q10 (Probability Scale & Basics):	$\frac{1}{2}$	[1m]
Q11 (Money Problems):	£3.40	[2m]	Q12 (Factors & Multiples):	1, 3, 9, 27	[1m]
Q13 (Area and Perimeter):	60	[2m]	Q14 (Linear Equations):	12	[3m]

Mixed Practice Set 2 — Calculator Allowed — Answers & Topic Guide

Q1 (Money Problems):	£4.95	[2m]	Q2 (Rounding):	28.72	[1m]
Q3 (Pie Charts):	2880	[2m]	Q4 (Fractions of an Amount):	160	[2m]
Q5 (Time & Timetables):	13:05	[2m]	Q6 (Angles in Lines, Triangles & Quadrilaterals):	54	[2m]
Q7 (Intro to Algebra):	85	[2m]	Q8 (Pictograms):	90	[1m]
Q9 (Function Machines):	10	[2m]	Q10 (Area and Perimeter):	54	[2m]
Q11 (Averages):	78	[3m]	Q12 (Powers & Roots):	42	[2m]
Q13 (Bar Charts):	Andy	[2m]	Q14 (Coordinates & Midpoints):	(4, -3)	[2m]