

Year 10 Summer Pack
Maths Support Booklet
Foundation

Name: _____



This booklet is designed to support your learning over the summer period to help support you to be in the best possible position for your exams in 2023. We all know that eating 5 portions of fruit and veg a day is good for us; well so is completing maths questions on a regular basis through the Corbett-Maths 5 a Day Booklet.

How to use this booklet:

You have been issued with a paper copy. We recommend that you complete 50% of the booklet by the time we return in September. While the summer break is a time for rest and relaxation, we recognise that some students enjoy having something to work on. For those who are currently not where they want to be, this is the perfect opportunity to close that gap ready for September.

You are encouraged to do one page every day in August, but of course you can choose to do more or less if you wish. Once you have completed a page, use the web link or QR Code below to check your answers. You may find the first few days more challenging, but the skills are repeated throughout the booklet so you will find similar questions later on, giving you more opportunities to practise and improve.

Please hand your booklet in to your Maths teacher in September

Link to Answers:

<https://corbettmaths.com/2016/10/26/august-answers/>



1st August

Numeracy 5-a-day



Corbettmαths

Work out $88 + 525$

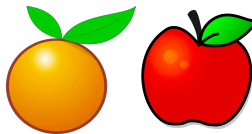
List the factors of 26

Work out

$$21 - 9 \div 3$$

A bag of 6 oranges cost £2.10
A bag of 5 apples cost £1.60

How much more does one orange cost than one apple?



Joash catches the 6:53am train from Bristol to Taunton.

He arrives in Taunton at 8:22am

How long was his journey?

_____ hours _____ mins



Write 600,000 in words

Write four thousand and twelve in figures

8 10 12 16

George picks two different numbers from the list.

He divides one number by the other.

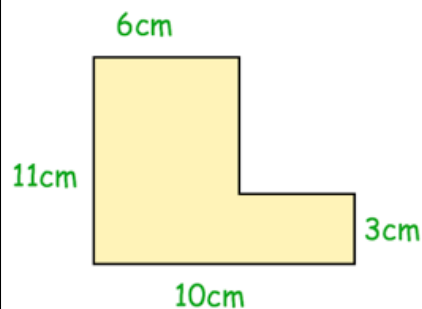
What is the largest answer he can make?

What is the smallest answer he can make?

Leo has £51
Max has £18 less than Leo.

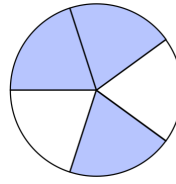
How much money do they have in total?

Work out the perimeter of this shape.





What fraction of this diagram is shaded?



Find the number halfway between 20 and 32.



The distance around the running track is 400m.

Andrew completes 5 laps.

How far has he run?

Uma completes 15 laps.

How far has she run?

Carly runs 5600m.

How many laps has she run?

$$763 \times 10$$

$$3.8 \times 10$$

$$84 \times 100$$

$$0.13 \times 100$$



Jenny has 20 sweets.

$\frac{1}{4}$ of the sweets are blue.

How many sweets are blue?

15 26 35 37 40 54 60 72

From the list write down:
Two numbers with a sum of 50

Two numbers with a difference of 32

Four tickets for a trip cost a total of £172.

Work out the cost of one ticket.

A film is shown in a cinema.

START 14:50

FINISH 16:25

How long does the film last?

Beach
450m

Hotel
200m



Michael sees this sign while walking

How far is it from the beach to the hotel?



Dominik has three 50p's and three 20p's.

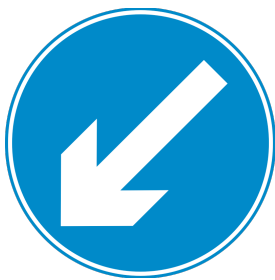
How much money does he have?

$28 + 73$

$93 - 25$

5×19

$240 \div 20$



How many lines of symmetry does the sign have?

There are 700 Lego bricks in a box. Vicky and Conor take 80 bricks each. Mollie, Taylor and Jayde share the rest of the bricks equally.

How many Lego bricks does Mollie get?



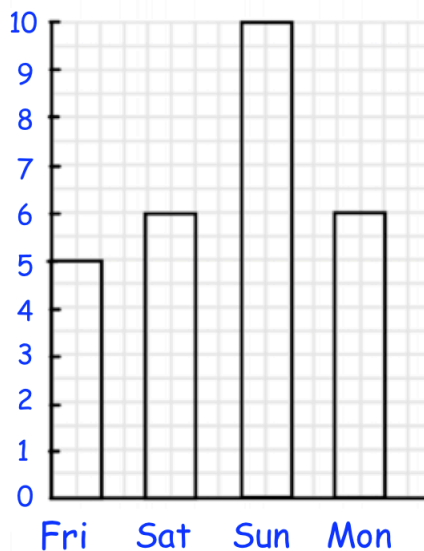
$6 \times 6 =$

$6 \times 8 =$

$5 \times 9 =$

$12 \times 11 =$

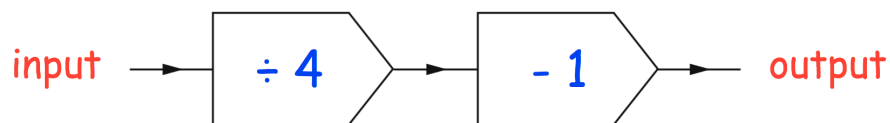
The bar chart below shows how many telephone calls Daisy made over 4 days.



On which two days did Daisy make the same number of telephone calls?

How many telephone calls did Daisy make altogether?

Here is a function machine



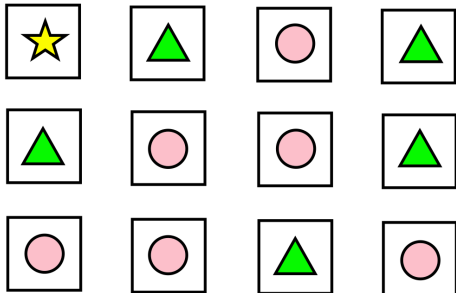
Work out the output, when the input is 24.

Work out the input, when the output is 3.



Write 20% as a fraction

Work out $9.8 - 1.53$



Leah picks a card at random.

What is the probability that the card has a circle on it?

In a theatre, there are 20 rows of seats.
In each row there are 12 seats.

During a show, there are 8 seats empty.

How many people went to the see the show?

Draw the net of a cuboid.



Take 24 away from 241

Add 493 and 384

The numbers in this sequence increase by the same amount each time.

12 17 22

Write the missing numbers

Simplify the ratio 6 : 15

Martin has £1.30
Harry has 80p

How much money should Martin give Harry, so that they have the same amount of money?

Adnan scored 9 out of 10 in a quiz.

What percentage of the questions did Adnan answer correctly?



Round 148 to the nearest 10

Round 148 to the nearest 100

Write down the square root of 49

Write $\frac{3}{50}$ as a percentage

Write 18% as a fraction.

Shade 80% of this shape



Jay has £3.65 in **5 pence pieces**

How many coins does he have?



Add together

- The number of days in May
- The number of hours in a day
- The number of sides a decagon has.

Draw a 30 degree angle.

A chair costs £17

How much will 6 chairs cost?

2 birthday cards at £2.70 each
1 toy at £6.50 each
1 book at £5.75 each

Work out the total cost.

Oliver is paid £300 a week.
Each week he saves two-fifths of his pay.

How much does he save each week?

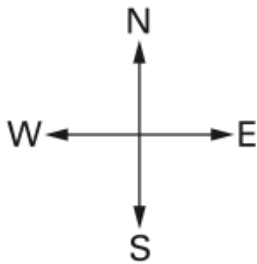
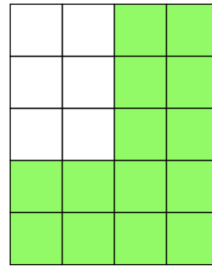


Draw a right angle

Draw and label a reflex angle

Write 190,080 in words.

What fraction of the grid is shaded?



Demi is facing South. She turns clockwise through 270 degrees.

Which direction is she now facing?

A greengrocer sold:
 10 apples
 6 bananas
 8 oranges
 5 lemons

Draw a pictogram to represent this



Round 272 to the nearest 10

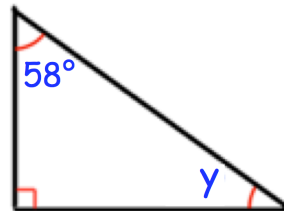
Round 272 to the nearest 100

Country	Gold	Silver	Bronze	Total
Spain	7	4	6	17
France	10	18	14	42
Germany	17	10	15	42
Italy	8	12	8	28
Japan	12	8	21	41
Australia	8	11	10	29

Which country won the most bronze medals?

Which countries won more silver than bronze medals?

Find the size of y .



The rule for continuing a sequence is

Multiply by 4
 then
 Subtract 3

The first term is 10.

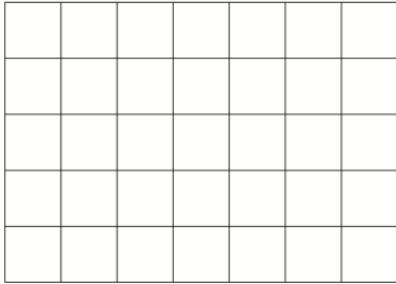
Work out the second term



Annie bought five DVDs at a cost of £10 each.

How much did Annie spend on the five DVDs?

She sold the DVDs for £68
How much profit did she make?



This is a centimetre grid.

Draw a square with perimeter 12cm

A small bottle of fizzy drink contains 500ml

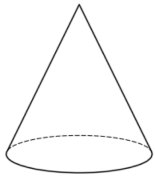
A large bottle contains 2 litres.

How much more does the large bottle contain?

Circle the fractions that are equivalent to $\frac{2}{3}$

$\frac{6}{8}$ $\frac{8}{12}$ $\frac{4}{6}$ $\frac{9}{12}$ $\frac{10}{15}$

Draw a shape with two lines of symmetry.



Name this solid

Sketch a cube

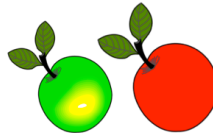
List the first 5 square numbers

List the first 5 cube numbers

A red apple cost 27p
A green apple cost 28p

Chloe wants buys two red apples
and two green apples.

She has £1. Is that enough?



Draw a shape with one line of
symmetry.

Find the product of 277 and 52

15th August

Numeracy 5-a-day



Corbettmαths

Work out

$$\sqrt{121}$$

Work out

$$10^2 + 12^2$$

Work out 45×19

For every 5p coin, Mason has two 2p coins.

If Mason has 30p in 5p coins, how much money does he have altogether?

Write in the missing number

$$\frac{1}{3} \text{ of } \boxed{} = 12 \times 5$$

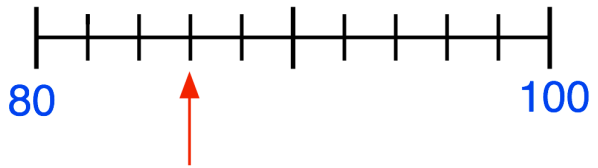
A turkey takes 4 hours 55 minutes to cook.

Louise plans to take the turkey out of the oven at 13:35.

What time must she start cooking it?



What number is the arrow pointing to?



Here is a list of 8 numbers.

15 16 18 19

20 22 24 27

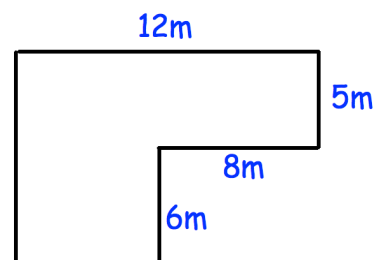
From the list, write down a prime number.

From the list, write down a factor of 32.

From the list, write down a multiple of 9, which is odd.

Find the product of 173 and 28

Find the perimeter of the shape shown.





Write 23,050 in words

Write twenty thousand and one in figures

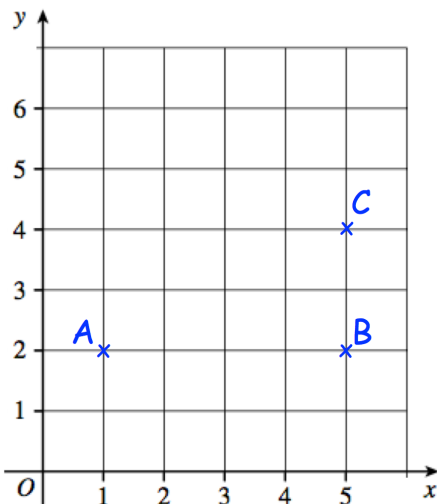
Fill in the gaps in these number patterns:

37 32 27

1 4 9

Express 50p as a fraction of £3

Give your answer in its simplest form.



Write down the coordinates of point A

A, B, C and D are the vertices of a rectangle.

Write the coordinates of point D



Kai buys one box of cakes for £1.25 and he pays with exactly four coins.

List the four coins.

Work out $9.1 - 1.62$

Convert 3 kilograms into grams

Convert 2 litres into millilitres

64	41	34	19	78
25	18	24	70	56

From the numbers in the grid, write down two numbers with a sum of 90

From the numbers in the grid, write down two numbers with a difference of 30.

From the numbers in the grid, write down two numbers with a product of 475



Take 34 away from 141

Add 49 and 384



Declan buys a pizza.
He pays with a £10 note.
He receives £2.41 change.

How much did the pizza cost?

Work out 10% of 60

Work out 50% of 11

Ben is organising a raffle.
He has 100 tickets.
He sells each ticket for 50p.

The cost of organising the raffle,
including prizes, is £15.

Ben sells all his tickets.
How much profit does he make?

Convert 5 kilometres into metres

Convert 8 metres into centimetres



Work out $45 + 20 + 15$

Work out $100 - 30 - 15$

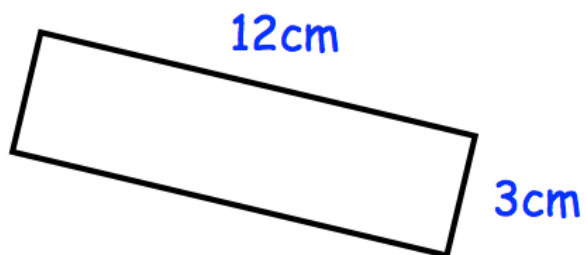
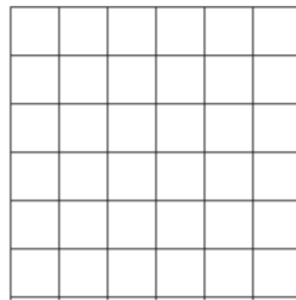
Round 348 to the nearest 10

Round 348 to the nearest 100

Cook for 15 minutes at 230°C .
Reduce the oven temperature to 160°C .
Then cook for 40 minutes per kilogram.

How long does it take to cook a 7kg turkey?

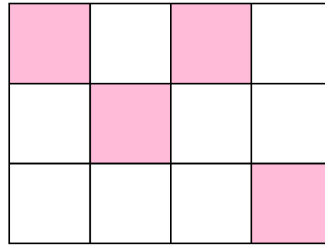
On the grid, draw an isosceles triangle.



Work out the perimeter of the rectangle



What fraction of the grid is shaded?



What are the next 2 terms?

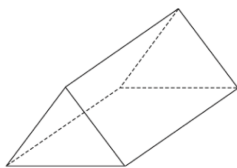
8 15 22 ___ ___

What are the next 2 terms?

7 6.5 6 5.5 ___ ___

Write one million in figures.

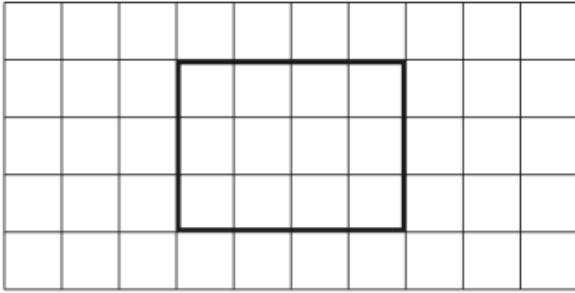
List all the factors of 14 that are also factors of 21.



Shown is a triangular prism

Write down the number of faces

Write down the number of edges

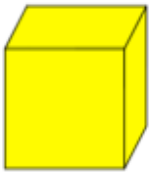


Shade 25% of the rectangle

Simplify fully

$$\frac{60}{80}$$

Sketch the net of a cube



List the square numbers between 20 and 70

List the prime numbers under 20.

Parmjit sells 12 books of raffle tickets
There are 10 tickets in each book.

How many tickets does he sell?

Each ticket costs 30p

How much money does he receive?



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

2301 2290 2310

Work out the sum of 2301, 2290 and 2310

Here is a sequence of numbers

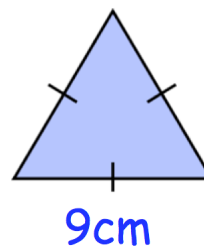
2 6 18 54

What is the rule for continuing the sequence?

Isabella believes all prime numbers are odd.

Is she correct?

Find the perimeter of this equilateral triangle.

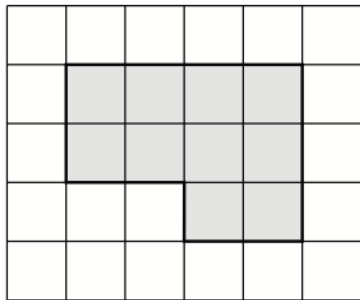
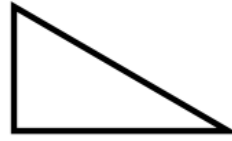


Work out $994 \div 7$

Work out $312 \div 13$



Name this type of triangle



This is a centimetre grid.

What is the area of the shape?

$$\text{£}15 \times \text{number of hours}$$

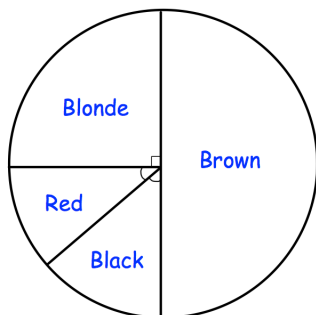
The cost of a plumber is found by using the formula above.

A job costs £60.

How long did the job last?

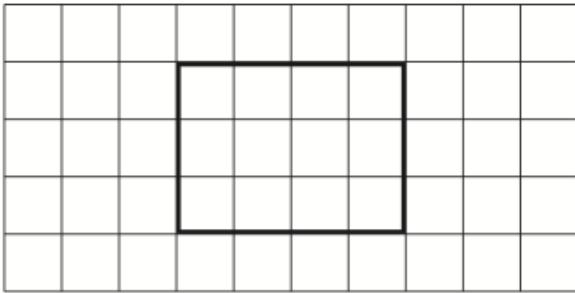
Write 0.2 as a fraction

Write 0.2 as a percentage



The pie chart shows information about the hair colour of the students in a class. There are 8 students with blonde hair.

How many students are in the class?



The rectangle is drawn on a centimetre grid.

What is its area?

How many minutes are in half an hour?

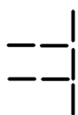
How many minutes are in two and a half hours?

Esme says that $36 + 8 \div 4 = 11$

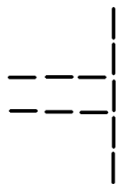
Is Esme correct? Explain why



Pattern 1



Pattern 2



Pattern 3

Draw Pattern 4

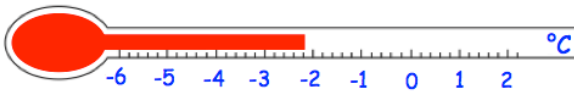
Work out the number that is halfway between 125 and 275



12 8 16 3 19 36

Write down one number from the list that is a multiple of 6

Write down the square numbers from the list

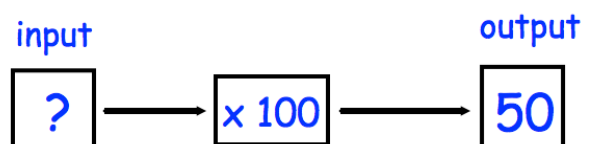
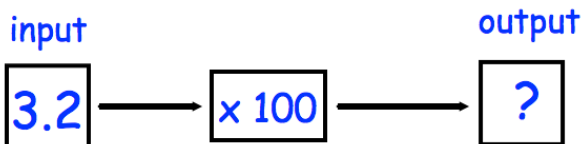


Write down the temperature on the thermometer.

The temperature falls by 3°C

Work out the new temperature.

Work out $6.8 - 1.47$



Work out 30% of 160



Name _____



Name _____

Henry has £3

He buys 3 packets of crisps costing 60p each.

How much money does he have left?

There are 135 pupils in Year 9 at a school

$\frac{2}{5}$ of these students are blonde.

How many students are blonde?

Write 34.8 correct to the nearest whole number.

Write 6.3 correct to the nearest whole number.

A bus leaves Bristol at 10:05 and arrives in Birmingham at 12:40.

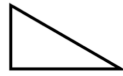
How long does the journey last?



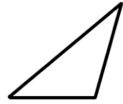
Match the triangles to the correct names.

Triangle

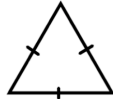
Name



Isosceles



Right angled



Equilateral



Scalene

Work out

$-9 + 4$

Arrange in order from smallest to largest

0.77 0.277 0.8 0.709

A TV programme began at 08:55 and ended at 10:20.

How long did it last?

Complete each sentence by writing in a sensible **metric** unit.

The amount of paint in a tin is

2.5

The length of a page is

297



Write 7.8 correct to the nearest whole number

Write 12.3 correct to the nearest whole number

Caravan	Sleeps	Cot	Decking	BBQ	Price
Luxury	6		✓	✓	£550
Basic	4	✓			£290
Family	6	✓		✓	£435
Comfort	4		✓	✓	£325

Which caravan sleeps 4 people and costs less than £300?

Matilda wants to rent a caravan for 6 people that has a BBQ and a cot.

How much would this caravan cost?

Arrange in order, starting with the smallest first.

0.19 0.3 0.215 0.099 0.1

On the isometric grid, draw an isosceles triangle.



30th August

Numeracy 5-a-day



Corbettmαths

12 8 16 3 19 36

Write down three numbers, from the list, that add up to 30

Arlo says that $9 + 4 \times 2 = 26$

Is Arlo correct? Explain why

Write $\frac{7}{10}$ as a percentage

Which is larger?

10% of £130

or

50% of £30

1 2 3 4 5 6

A card is picked at random

Write down the probability that the card is a 3



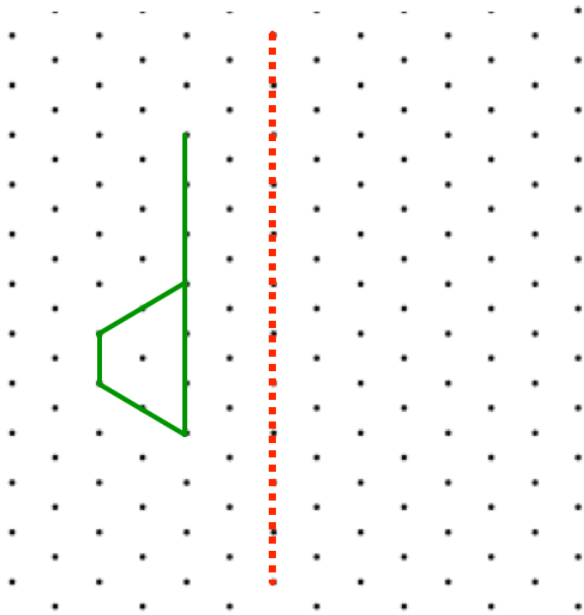
Write 30,000 in words

Write two thousand and two in figures

Double 36

Double 1.8

Mirror Line



Reflect the shape in the mirror line

Work out 20% of £900

Both rectangles have the same area.

Find the length of the second rectangle.

