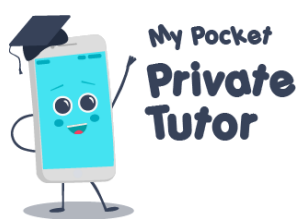


MATH COMPREHENSION masterclass

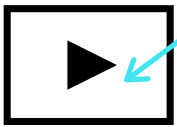
**A 5 Part Course which models strategies
to work through word problems found in
Year 6 SATs Reasoning papers.**

**The solution for each problem is modelled
during the video tutorial.**

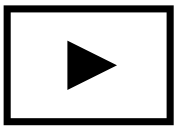


MATH COMPREHENSION masterclass

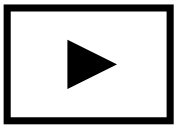
Click the icons to go to the lesson video



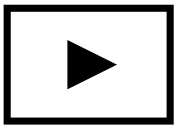
Session 1. Measures



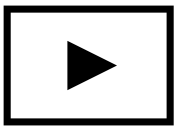
Session 2. Using clues



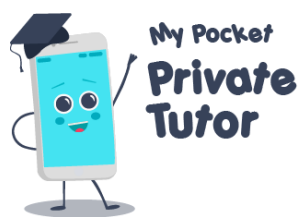
Session 3. Multi-step



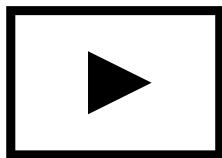
Session 4. Geometry



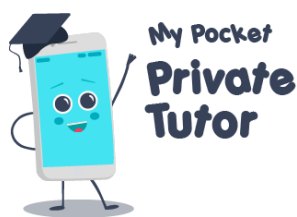
Session 5. Data



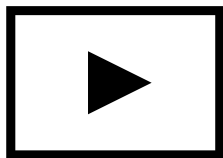
MATH COMPREHENSION masterclass



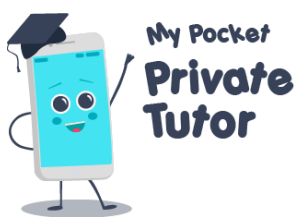
Session 1



MATH COMPREHENSION masterclass

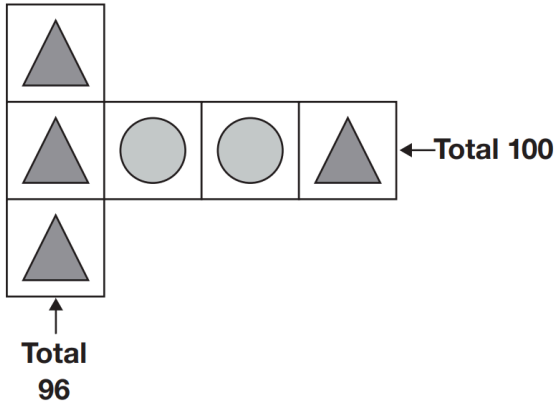


Session 2




4


Each shape stands for a number.



Work out the **value** of each shape.

 = _____

1 mark

 = _____

1 mark

14

Amina planted some seeds.
 For every 3 seeds Amina planted, only 2 seeds grew.
 Altogether, 12 seeds grew.

How many seeds did Amina **plant**?

1 mark

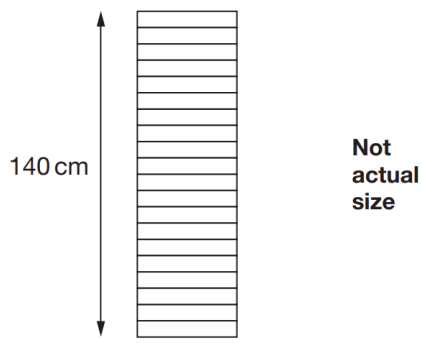


scan



13

A stack of 20 identical boxes is 140 cm tall.



Stefan takes **three** boxes off the top.

How tall is the stack now?



scan

Show your method

2 marks

13

Lara chooses a number less than 20
 She divides it by 2 and then adds 6
 She then divides this result by 3
 Her answer is 4.5

What was the number she started with?

Show your method

2 marks



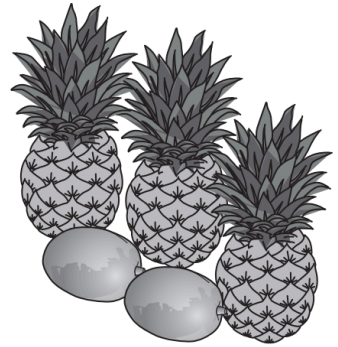
2017 Paper 3 Q2



14

3 pineapples cost the same as 2 mangoes.

One mango costs £1.35



How much does **one** pineapple cost?

Show your method

£

2 marks



scan

2017 Paper 3 Q14

2

A group of friends earns £80 by washing cars.

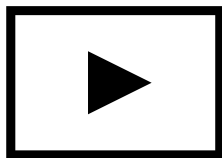
They share the money **equally**.

They get £16 each.

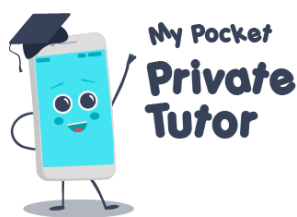
How many friends are in the group?

1 mark

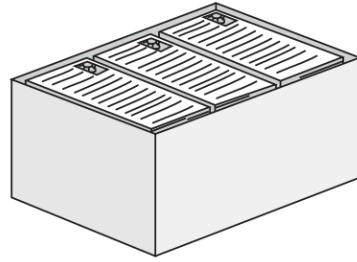
MATH COMPREHENSION masterclass



Session 3



MATH COMPREHENSION masterclass



There are 2,400 leaflets in a box.
 William and Ally take 450 leaflets each.
 Adam and Chen share the rest of the leaflets equally.

How many leaflets does Adam get?

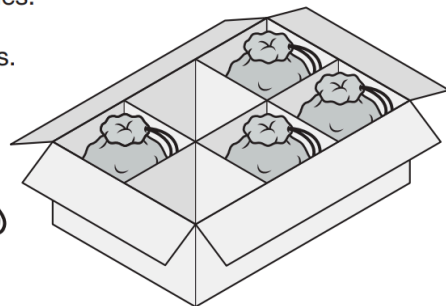
2 marks



scan

2016 Paper 3 Q11

shop orders 11 boxes of marbles.
 box contains 6 bags of marbles.
 Each bag contains 45 marbles.



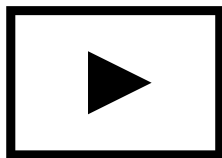
How many **marbles** does the shop order in total?

Show your method

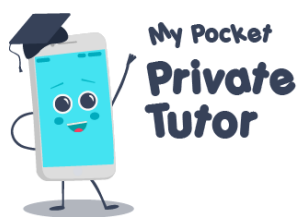
2 marks



MATH COMPREHENSION masterclass



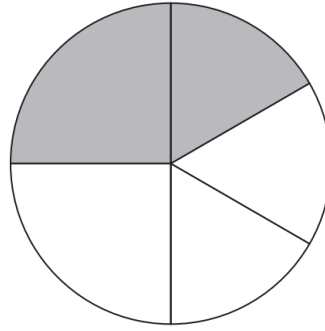
Session 4



MATH COMPREHENSION masterclass

23

In this circle, $\frac{1}{4}$ and $\frac{1}{6}$ are shaded.



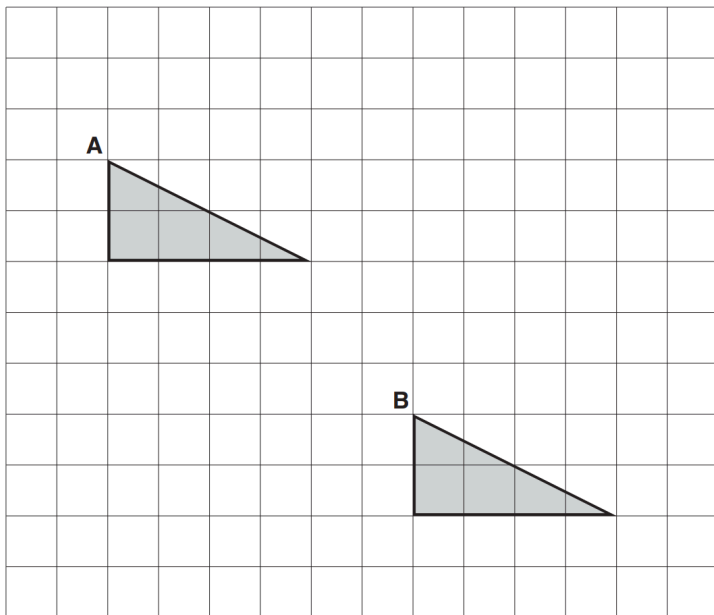
What fraction of the whole circle is **not** shaded?

Show your method

2 marks

12

A triangle is translated from position **A** to position **B**.



2016 Paper 3 Q12



scan

Complete the sentence.

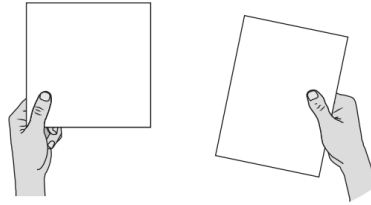
The triangle has moved squares to the right

and squares down.

1 mark

MATH COMPREHENSION masterclass

20

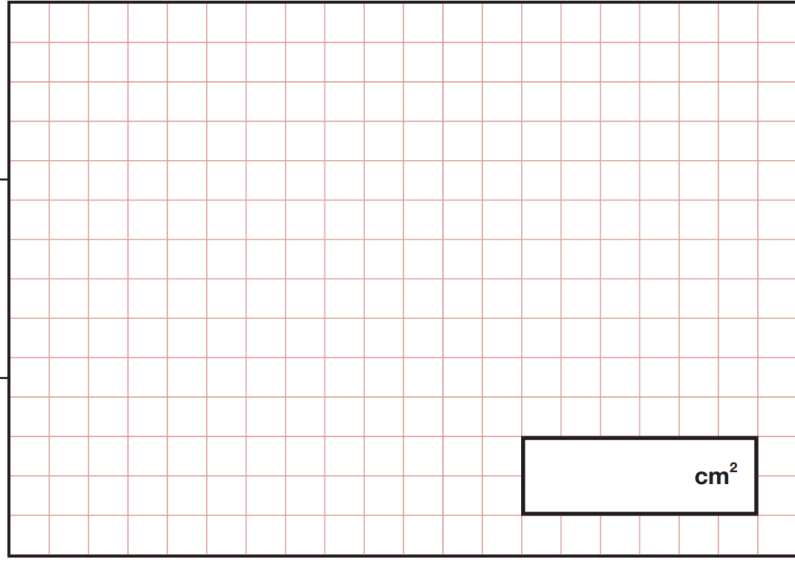


A square tile measures 20 cm by 20 cm.

A rectangular tile is 3 cm **longer** and 2 cm **narrower** than the square tile.

What is the **difference in area** between the two tiles?

Show your method

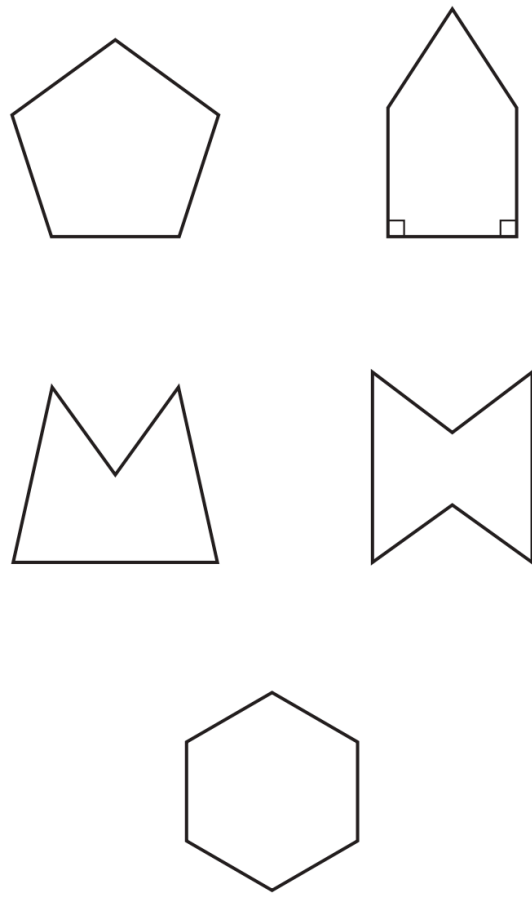


3 marks

13

Circle the **pentagon** with exactly **four acute angles**.

2017 Paper 3 Q13



scan

1 mark



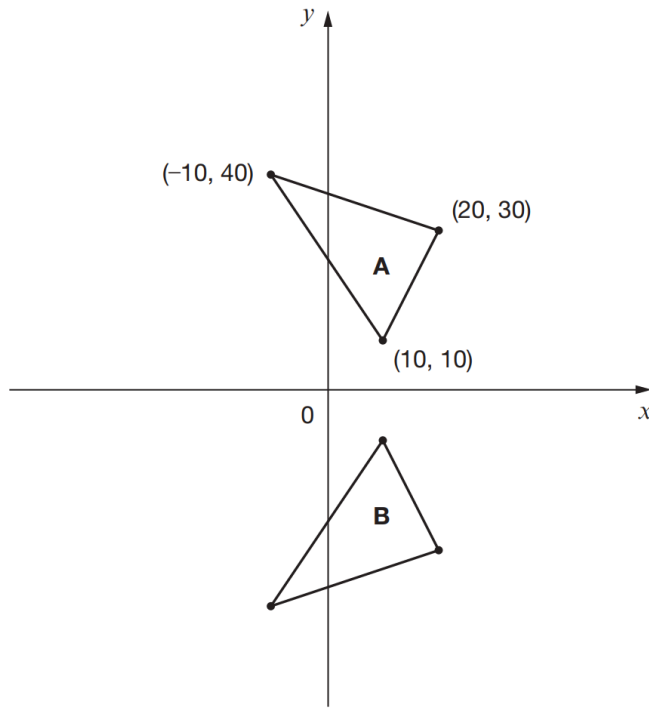
MATH COMPREHENSION masterclass

20

Here are two triangles drawn on coordinate axes.



scan



Triangle B is a reflection of triangle A in the x -axis.

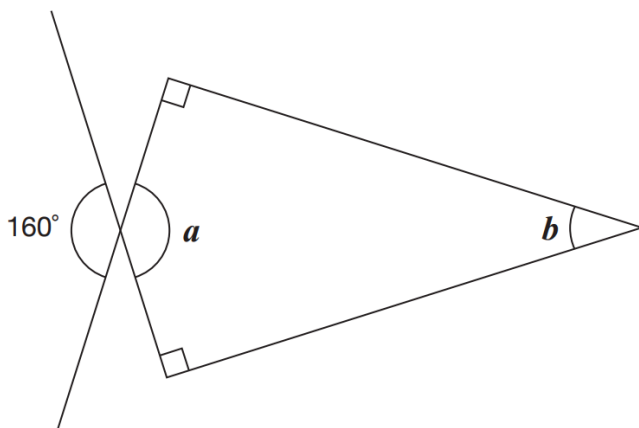
Two of the new vertices of triangle B are $(10, -10)$ and $(20, -30)$.

What are the coordinates of the **third** vertex of triangle B?

1 mark

17

Calculate the size of angles a and b in this diagram.



Not to scale

2016 Paper 2 Q17

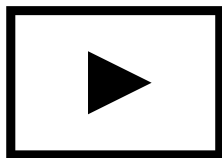
$a =$ °

1 mark

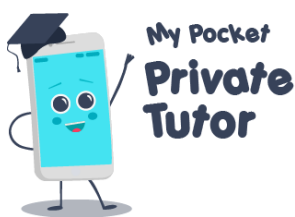
$b =$ °

1 mark

MATH COMPREHENSION masterclass



Session 5



MATH COMPREHENSION masterclass



Here is the morning timetable for Chen's class this week.

Time	Mon	Tue	Wed	Thu	Fri
9:00 am–10:30 am	Maths	English	Maths	English	Maths
10:30 am–11:00 am	Break	Break	Break	Break	Break
11:00 am–12:00 pm	English	Maths	Science	Maths	English

What is the **total** number of hours for **English** on this timetable?

hours

1 mark

4

This table shows the number of people living in various towns in England.

Town	Population
Bedford	82,448
Carlton	48,493
Dover	34,087
Formby	24,478
Telford	166,640

What is the **total** of the numbers of people living in Formby and in Telford?

1 mark

What is the **difference** between the numbers of people living in Bedford and in Dover?

1 mark

2016 Paper 2 Q4



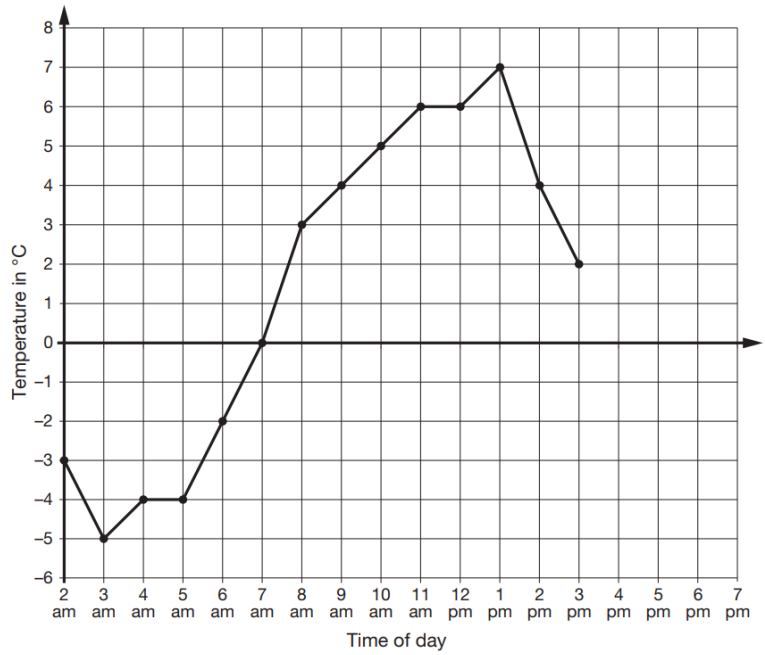
scan

MATH COMPREHENSION masterclass



4

This graph shows the temperature in °C from 2 am to 3 pm on a cold day.



How many degrees **warmer** was it at 3 pm than at 3 am?

 °C

1 mark

At 6 pm the temperature was 4 degrees lower than at 3 pm.

What was the temperature at 6 pm?

 °C

1 mark

4 This table shows the heights of three mountains.

Mountain	Height in metres
Mount Everest	8,848
Mount Kilimanjaro	5,895
Ben Nevis	1,344

2017 Paper 2 Q4

How much higher is Mount Everest than the combined height of the other two mountains?

Show your method

m

2 marks



MATH COMPREHENSION masterclass



William wants to travel to Paris by train.

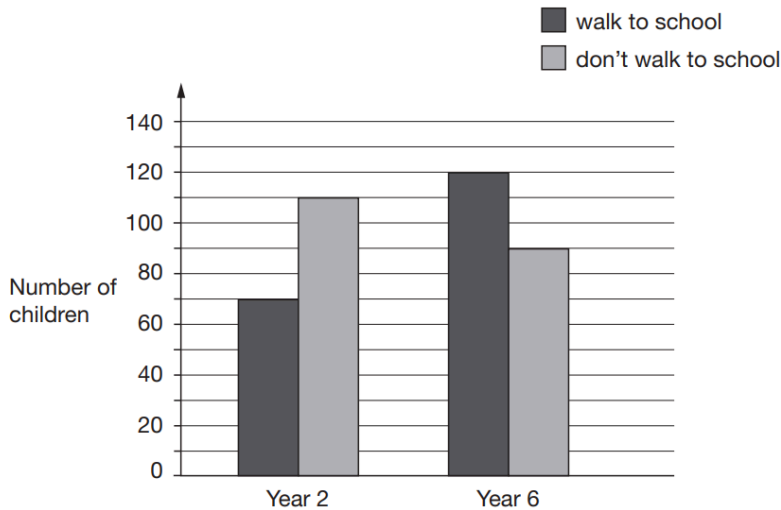
He needs to arrive in Paris by **5:30 pm**.

Circle the **latest time** that William can leave London.

Leaves London	Arrives Paris
12:01	15:22
12:25	15:56
13:31	16:53
14:01	17:26
14:31	17:53
15:31	18:53
16:01	19:20

1 William asks the children in Year 2 and year 6 if they walk to school.

This graph shows the results.



Altogether, how many children **don't** walk to school?

1 mark

How many **more** Year 6 children than Year 2 children walk to school?

1 mark

2017 Paper 2 Q1