



ALL IN ONE PLACE BASE CAMP MATHS INTERMEDIATE TEST 1 Maximum score 150

INSTRUCTIONS

- There is no time limit for the test
- Work quickly but accurately
- Only ask for help once you have completed the test
- Only use a calculator if the question states you can
- Write your working and answers on this test
- Use the solution sheet to check your work

ABOUT MATHS TESTS

You're ready for another test so show everybody that you can use and apply what you've learnt in Maths. Always remember

use what you learn

That's the point of learning.

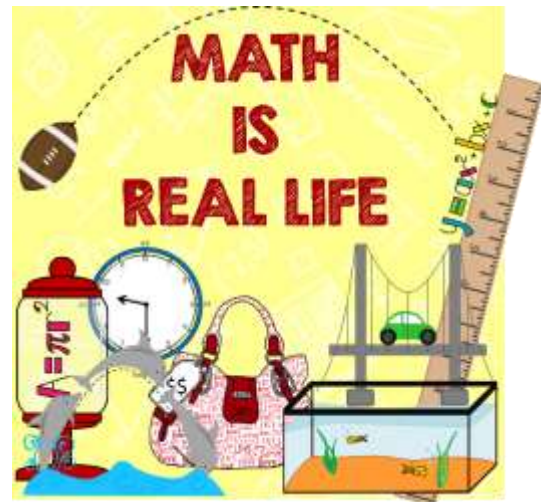
You're doing a test at the intermediate level. You know the basics of Maths, so be confident and aim high.

You can use your tests and scores to

- see what you're good at
- see which concepts you still need to work on
- improve time management
- see Maths happen in daily life
- apply what you've learnt at school and at home
- prepare for school and 11+ exams and tests

INTERMEDIATE TESTS

Maths Intermediate tests are for Year 6 students. The tests covers the important ideas and concepts you learnt in Maths in Year 5 and also are learning at school. A score of 75% means you're well on the way to being the next Einstein. Some questions are easy; the challenging ones show that you know Maths.





DOING THE TEST

Imagine you are doing a class test – do this test in the same way.

TIME There is no time limit for this test so you don't get anxious or stressed – you still need to work accurately and manage your time well.

BANK MARKS If you can do a question, leave it and return to it later; it's good to build a bank of marks – you know that you are achieving and build your confidence.

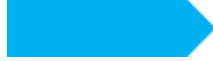
SHOW AND TELL Show all working – teachers like to see how you got an answer; plus, you'll get some marks even if the answer is incorrect. Showing your working means showing you care.

NEATLY NOW Write neatly and make sure your answers are clear to that anybody can read them. The same goes for drawing – label and use a ruler. Neat works makes a good impression, shoddy stuff, no matter how good, will get you on the wrong side of your teacher or examiner.

CHECK NOT CHOKER Check your work, but don't over check – sometimes people check too many times and change right answers into wrong ones.

SHOW THEM HOW TO DO IT Work independently without help from computers, books, or anybody. Don't daydream or waste time – this is your time to show everybody how to do it!





ARE YOU READY FOR MORE OF THE REAL THING

Time to get going. There are 150 marks for you to get. No worries – your foundation in Maths is good, so getting most of them will be easy. The questions are not arranged from easy to the most difficult, but have a random order. This structure will help you prepare for school tests or 11+ examinations.

Remember *time, bank, neatly, show, check, your work*



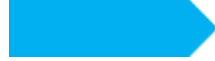
JUMP 1

Complete the table using some of the numbers in the box.


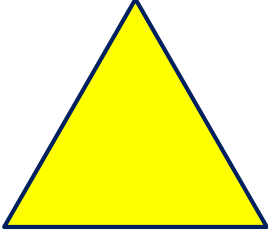
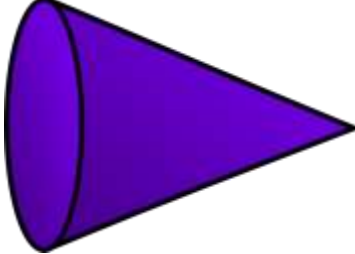

[6 marks]

Find a	The number is
prime number	
A factor of 60 that is a multiple of 3	
The product of 1 and - 1	
A number whose digits sum to 8	
A multiple of 6 and 12	
A square number	

17	81	1	0	- 1	72	440	15	- 2
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Use these shapes to answer the questions.

	
<p style="text-align: center;">SHAPE A</p>	<p style="text-align: center;">SHAPE B</p>
	
<p style="text-align: center;">SHAPE C</p>	<p style="text-align: center;">SHAPE D</p>

a. What is the name of **SHAPE A**?
[1 mark]

ANSWER _____

b. How many lines of symmetry does **SHAPE A** have?
[1 mark]

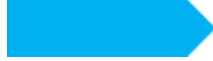
ANSWER _____

c. What is the order of rotational symmetry of **SHAPE B**?
[1 mark]

ANSWER _____

d. Label the circumference on **SHAPE C**.
[1 mark]

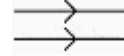
ANSWER _____



e. How many vertices does **SHAPE D** have?
[1 mark]

ANSWER _____

f. Show the parallel sides in **SHAPE A** using arrows like this



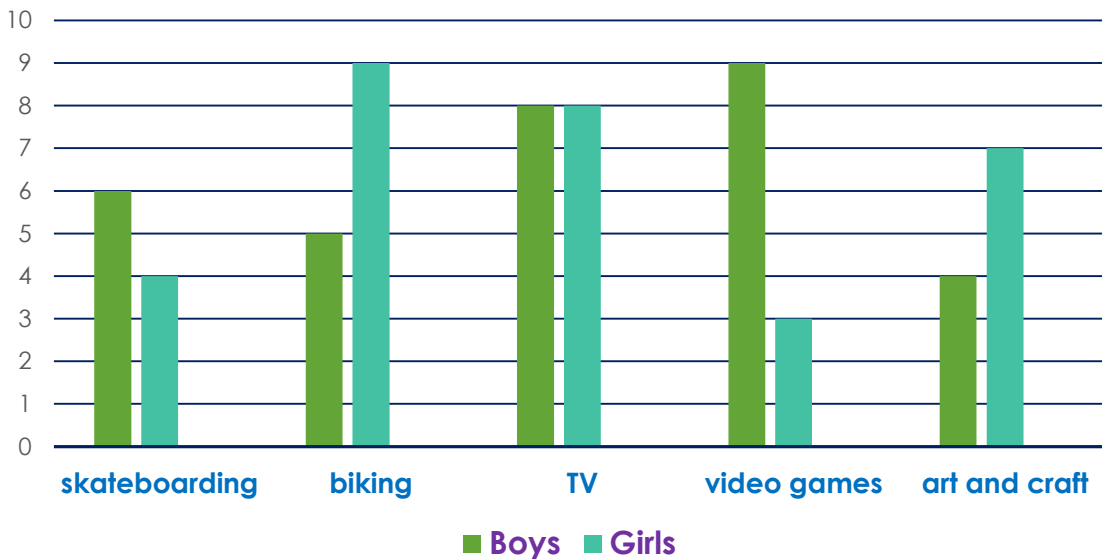
[1 mark]



JUMP 4

The bar chart shows the favourite activities for a group of students attending a summer camp.

Summer Camp Activities



a. How many students were at the summer camp?
[2 marks]

ANSWER _____

b. What percentage of the students were girls? You can use a calculator and express your answer to the nearest whole number.
[2 marks]

ANSWER _____ %



c. How many more girls liked biking than boys?
[1 mark]

ANSWER _____

d. How many more boys liked watching TV than doing art and craft?
[1 mark]

ANSWER _____

e. Twelve more students join the camp. Two thirds of the new-comers are boys. Two of the new girls like art and craft while the rest prefer skateboarding. Half of the boys want to do skateboarding. Two boys like watching TV and the remaining boys like biking.

Work out the number of 'new-comer' boys and girls participating in each activity. Add this information to the bar chart.
[4 marks]



f. Which type of graph could also be used to represent this data? Circle one option.
[1 mark]

histogram	line graph	pie chart	scatter graph
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JUMP 5

The values of three variables are shown in the box.

$$x = 2 \quad y = 7 \quad z = -3$$



a. What is the value of $x + y + z$?
[1 mark]

ANSWER _____

b. What is the value of $x^2 + z^2$?
[2 marks]

ANSWER _____

c. What is the value of $2(z + x) \div (y - z)$?
[3 marks]

ANSWER _____

d. Add either $<$ $>$ or $=$ to the heptagon make the algebraic statement true.
[1 mark]

$$(x - z)^2 \quad \text{heptagon} \quad (y + z)^2$$

 **JUMP 7**

Complete the table by writing the missing fractions, decimals and percentages.
Express the fractions in the simplest form.
[6 marks]

FRACTION	DECIMAL	PERCENTAGE
3/4		
		85
	2.20	



JUMP 8

Nate and Steve both enjoy canoeing. They are on holiday in Louisiana and decide to spend the day canoeing from New Orleans to Venice on the west bank of the Mississippi river.

The distance between New Orleans and Venice is 100 km by car and 80 km by river.



a. What fraction of the distance by car, is the distance on the Mississippi? Express your answer in the simplest form.

[2 marks]

ANSWER _____

b. Nate and Steve start their journey down the Mississippi at 9 o'clock. Two hours later, they take a break for a snack. According to Nate, they still have 55 kilometres to travel before they reach Venice. What percentage of their journey have they completed? Express your answer to two decimal places.

[3 marks]

ANSWER _____ %

c. Nate and Steve start canoeing again at 11:15 and break for lunch at 14:15. Nate calculates they travelled the same distance as earlier. How much further do they need to canoe to reach Venice?

[1 mark]

ANSWER _____ km

f. Steve's parents drive from New Orleans to Venice to fetch the boys after their trip down the Mississippi. They travel by road at 100 kilometres per hour, compared to the boys' speed of 12.5 kilometres per hour. Express Nate's and Steve's canoeing speed as a decimal fraction of the road speed.

[1 mark]

ANSWER _____



g. Steve's parents left New Orleans at 15:10 and stopped for 10 minutes for petrol. At what time did they arrive in Venice?

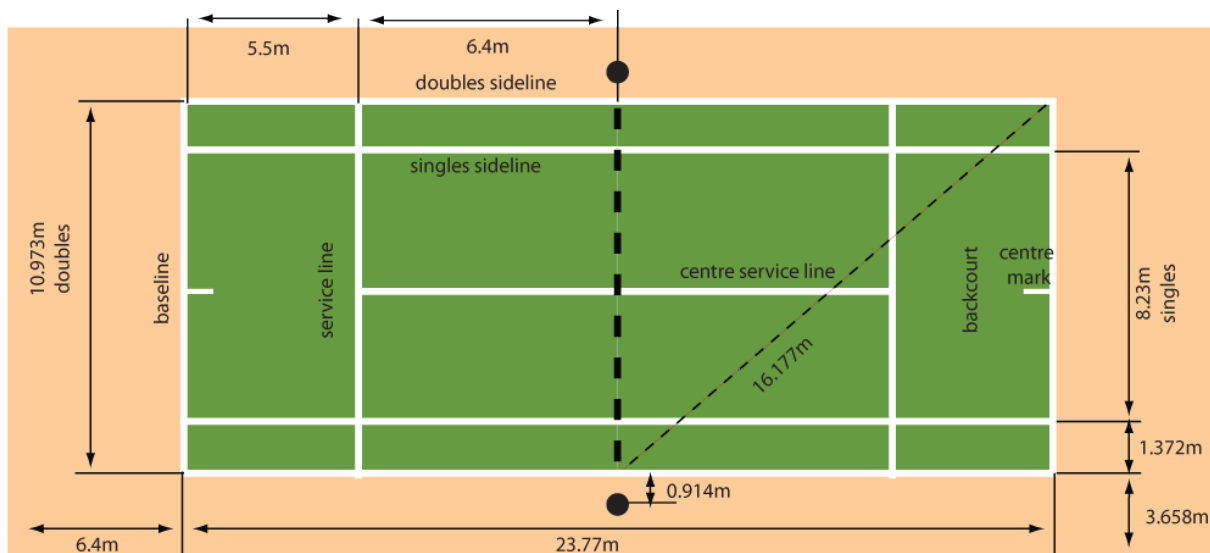
[1 mark]

ANSWER _____



JUMP 11

A standard tennis court is represented by this scale diagram.





a. Calculate the perimeter of the tennis court for a doubles match.
[3 marks]

ANSWER _____ m

c. Look at the photograph of Zack playing a singles match. On the scale diagram, mark his approximate position with a **Z**.

[1 mark]

d. What is the shortest distance from the corner of a singles court to the centre line?

[1 mark]

ANSWER _____ m




 **JUMP 12**

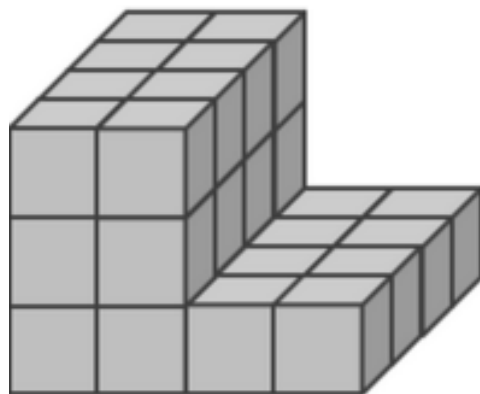
The length of each cube making up this irregular solid is 2 cm.

a. How many cubes make up the solid?
[2 marks]

ANSWER _____

b. Calculate the volume of one cube.
[1 mark]

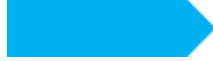
ANSWER _____ cm³



e. Use the formula to calculate the volume that is added to form a regular shape.
[1 mark]

volume added = C × volume of 1 cube

ANSWER _____ cm³



JUMP 13

Use your outstanding BIDMAS skills to work out each answer.

a. $2 + 3 \times 6$
[1 mark]

ANSWER _____

b. $3^2 \times 6 - 3$
[2 marks]

ANSWER _____

c. $2(2 - 3) \div 2(3 - 2)$
[2 marks]

ANSWER _____



e. Gavin and Violet are asked to do this problem

$$48 \div 2(9 + 3) =$$

They get different answers!

Gavin's answer	Violet's answer
288	2

Who got the correct answer? Explain why.

[2 marks]

ANSWER



You go to a school that has students from all over the world. All the people in your class speak English. They also speak at least one other language. The table shows the different languages spoken by your classmates.

Language	Number of students
English	20
French	12
Spanish	10
German	9
Russian	6
Swedish	2
Chinese	1



a. How many students are in your class?
[1 mark]

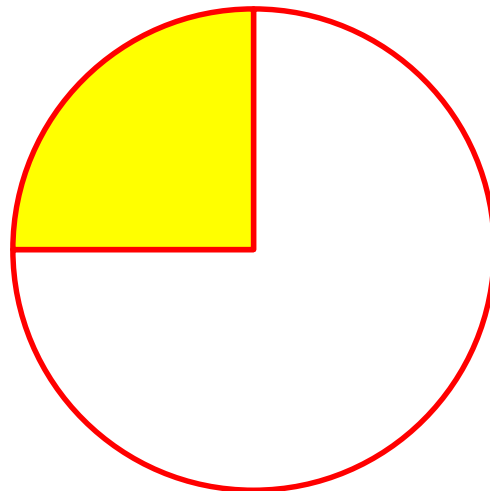
ANSWER _____

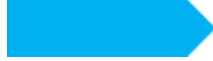
c. Complete the pie chart showing the number of students in your class that can speak a language other than English.

Label the pie chart showing each language. Provide a suitable title for the graph.

[6 marks]

Title: _____





JUMP 17

Find the value of **h** in each equation.

a. $h - 2 = 10$

[1 mark]

ANSWER _____

b. $10 + 2h = h + 20$

[2 marks]

ANSWER _____



JUMP 18

The clocks show the times in four cities.

a. What is the time in London?

[1 mark]

ANSWER _____

b. How many hours is Hong Kong ahead of Paris?

[2 marks]

ANSWER _____

c. If it is midnight in London, what is the time in New York?

[1 mark]

ANSWER _____



NEW YORK



HONG KONG



LONDON



PARIS



JUMP 20

Chad has k £1 coins, Emma has double Chad's amount and Jack has 3 times as much as Amy.

a. Write an expression for the amount of money the friends have in terms of k .

[2 marks]

ANSWER _____

b. The friends have £45 altogether. How much does each person have?

[3 marks]

Chad £ _____

Emma £ _____

Jack £ _____



GIVE IT UP FOR YOU!

Well done! Another Maths test done test done.

Two more things for you to do before taking a good break

- work out your percentage
- decide how good you are at different Maths topics covered in this test





YOUR PERCENTAGE

Add up your marks and write your percentage for the test in the table. Also decide what percentage you'd like to score next time.

My score for this test	%	My score in the next test	%
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MATHS TOPICS

Rate your understanding of each Maths topic. Write an **X** in each row showing your rating.

TOPIC	GOOD	OKAY	PRACTISE
Fractions and Decimals			
Percentage			
Word problems			
Shapes			
Ratio and Proportion			
Units of Measurement			
Area, Volume, Perimeter			
Using graphs			
Drawing graphs			
Scale drawings			
Mean, Mode, Median			
Sequences			
Multiples, Factors, Primes			
Time			
BIDMAS			
Algebra			

