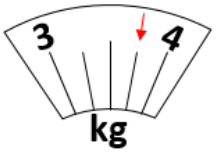
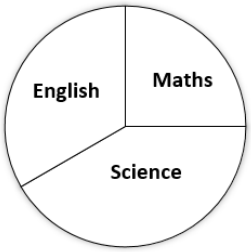
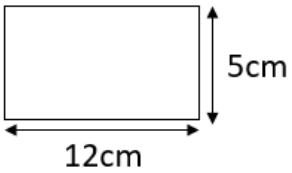
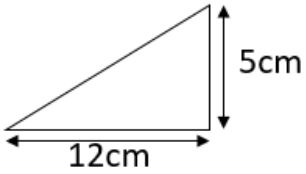
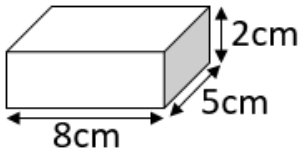
11 Plus Maths Revision Sheet

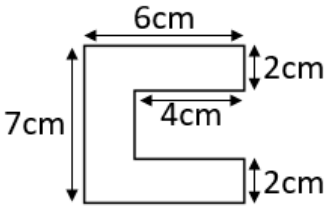
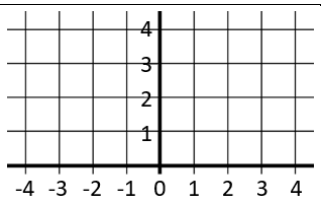
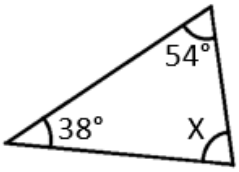
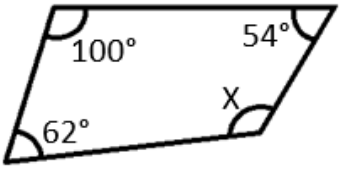
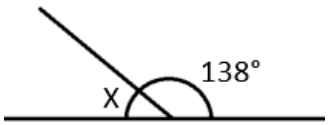
Before you take an exam, you should revise. This means looking back at the things you have learnt at school to make sure you haven't forgotten them! Here are some of the things that you should know. The list doesn't include EVERYTHING you need to know for your 11 plus, but we've tried to include all the things that it's easy to forget!

Look at the topic question in the left hand box. See if you can write an answer in the middle box. If not, check the answer pages. Some of the sections will have a practice question to try.

Topic Question	Your Answer	Practice Question
What is a factor?		List all the factors of 30
What is a multiple?		List the first 6 multiples of 4
What is a prime number?		List the first 10 prime numbers
What is a square number?		2^2 = _____ 3^2 = _____ 4^2 = _____
Can you remember how to do long multiplication?	Try the practice question to find out!	475 x 13 =
Can you remember how to divide with long numbers?	Try the practice question to find out!	4956 ÷ 13 =
Can you solve proportion problems?	Try the practice question to find out!	To make 12 cupcakes I need 150g of flour. How much flour do I need to make 18 cupcakes?
Do you know how to multiply and divide decimal numbers by 10, 100 and 1000?		4.32 x 10 = _____ 534.6 ÷ 100 = _____
How do you add and subtract fractions?		$\frac{4}{5} - \frac{3}{10} =$

What must always line up when you add and subtract decimals?		3.84 + 12.3 =
How do you find the percentage of a number?		Find 30% of 70
How do you change between mixed numbers and improper (top heavy) fractions?		$2\ ^{1}/_{3}$ = $^{17}/_{5}$ =
Do you remember how to collect algebraic terms (ones with letters!) together?	Try the practice question to find out!	Simplify: 2A + 3B + 4A – B
When a number is written next to a letter (e.g. 2A), what does it mean?		
Can you solve equations to find out what the letter means?	Try the practice question to find out!	Find the value of A: 1. A + 7 = 12 2. 2A – 4 = 10
Fill in the table with the correct numbers	1cm = _____ mm 1m = _____ cm 1km = _____ m 1 litre = _____ ml 1kg = _____ g	
Can you remember how the 24 hour clock works?		
How many minutes are there in 1 hour?		
Do you know how to read scales?		What number is this scale pointing to? 

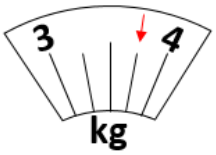
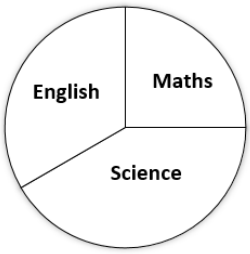
What is the mean? How do you work it out?		Find the mean of: 2, 4, 5, 6, 8
Can you understand a pie chart?	Try the practice question to find out!	 6 children said they prefer maths. How many children were asked in total?
How do you work out the area of a square or rectangle?	_____ x _____	Find the area: 
How do you work out the area of a triangle?		Find the area: 
How do you work out the volume of a cube or cuboid?	_____ x _____ x _____	Find the volume: 

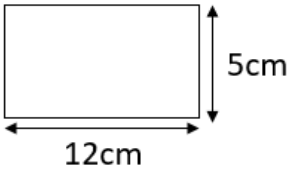
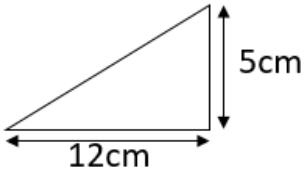
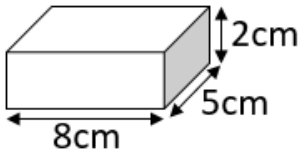
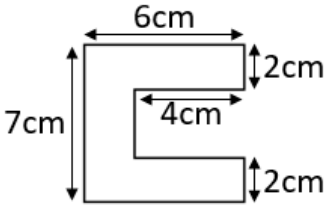
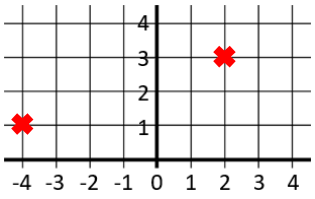
How do you find the perimeter of a shape?		Find the perimeter: 
How do you plot a set of coordinates?		 Plot (2 , 3) and (-4 , 1)
What do the angles in a triangle add up to?	_____°	Find the size of angle X 
What do the angles in a quadrilateral add up to?	_____°	Find the size of angle X 
What do the angles on a straight line add up to?	_____°	Find the size of angle X 

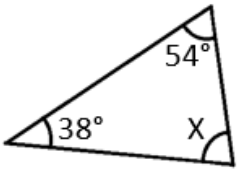
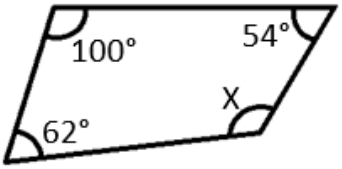
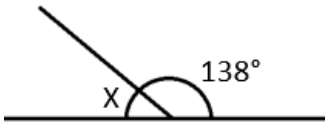
Answers

Topic Question	Your Answer	Practice Question
What is a factor?	**Factors are numbers that your number can be divided by**	List all the factors of 30 **1, 2, 3, 5, 6, 10, 15, 30**
What is a multiple?	**Multiples are numbers that can be divided by the number you are given**	List the first 6 multiples of 4 **4, 8, 12, 16**
What is a prime number?	**A prime number can only be divided by 1 and itself**	List the first 10 prime numbers **2, 3, 5, 7, 11, 13, 17, 19, 23, 29**
What is a square number?	**A square number is the result when you multiply a number by itself**	2^2 = **2 x 2 = 4** 3^2 = **3 x 3 = 9** 4^2 = **4 x 4 = 16**
Can you remember how to do long multiplication?	Try the practice question to find out!	4 7 5 x 1 3 1 4 2 5 (3 x 475) 4 7 5 0 (10 x 475) **6 1 7 5**
Can you remember how to divide with long numbers?	Try the practice question to find out!	**3 8 1 rem. 3** 13 | 4 9 5 6 3 9 1 0 5 1 0 4 1 6 1 3 3
Can you solve proportion problems?	Try the practice question to find out!	To make 12 cupcakes I need 150g of flour. How much flour do I need to make 18 cupcakes? **12 cupcakes = 150 grams** **6 cupcakes = 75 grams** **12 + 6 = 18, so 150 + 75 = 225g**
Do you know how to multiply and divide decimal numbers by 10, 100 and 1000?	**When multiplying by 10, the decimal point moves 1 place to the right. X100 = 2 places right. X1000 = 3 places right.** **When dividing by 10, the decimal point moves 1 place to the left. ÷100 = 2 places left. ÷1000 = 3 places left.**	4.32 x 10 = **43.2** 534.6 ÷ 100 = **5.346**

How do you add and subtract fractions?	**Remember that the bottom numbers MUST be the same. You only add and subtract the numerators (top numbers).**	$\frac{4}{5} - \frac{3}{10} = \frac{8}{10} - \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$
What must always line up when you add and subtract decimals?	**The decimal points must line up. If you end up with spaces, fill them with a 0**	3.84 + 12.3 = **3 . 8 4** **+ 1 2 . 3 0** **1 6 . 1 4**
How do you find the percentage of a number?	**Start by finding 10% - do this by dividing the number by 10.**	Find 30% of 70 **10% of 70 = 70 ÷ 10 = 7** **If 10% = 7, 30% = 7 x 3 = 21**
How do you change between mixed numbers and improper (top heavy) fractions?	**To change from a mixed number, multiply the whole number by the denominator and add that to the numerator of the fraction. To change from an improper fraction, divide the numerator by the denominator.**	$2\ ^1/_3$ = **2 x 3 = 6** **6 + 1 = 7** **Answer = $^7/_3$** $^{17}/_5$ = **17 ÷ 5 = 3 rem.2** **Answer = 3 $^2/_5$**
Do you remember how to collect algebraic terms (ones with letters!) together?	Try the practice question to find out!	Simplify: 2A + 3B + 4A – B **2A + 4A = 6A** **3B – B = 2B** **So, our answer is 6A + 2B**
When a number is written next to a letter (e.g. 2A), what does it mean?	**2A means 2 multiplied by A**	
Can you solve equations to find out what the letter means?	Try the practice question to find out!	Find the value of A: 1. A + 7 = 12 **A = 12 – 7** **A = 5** 2. 2A – 4 = 10 **2A = 10 + 4** **2A = 14** **A = 7**
Fill in the table with the correct numbers	1cm = **10** mm 1m = **100** cm 1km = **1000** m 1 litre = **1000** ml 1kg = **1000** g	

Can you remember how the 24 hour clock works?	**00 00 06 00 12 00 18 00** **01 00 07 00 13 00 19 00** **02 00 08 00 14 00 20 00** **03 00 09 00 15 00 21 00** **04 00 10 00 16 00 22 00** **05 00 11 00 17 00 23 00**	
How many minutes are there in 1 hour?	**60 minutes (not 100!!)**	
Do you know how to read scales?	**Look carefully at the scale to work out what each of the lines represents.**	What number is this scale pointing to?  **To get from 3kg to 4kg, the scale has gone up in 4 sections, so each section must be 250g.** **This means the scale is pointing to 3750g or 3.75kg**
What is the mean? How do you work it out?	**Mean is the same as average. To find the mean/average, add all the numbers together. Then, divide that by the amount of numbers.**	Find the mean of: 2, 4, 5, 6, 8 **2 + 4 + 5 + 6 + 8 = 25** **25 ÷ 5 = 5**
Can you understand a pie chart?	Try the practice question to find out!	 6 children said they prefer maths. How many children were asked in total? **Maths makes up a quarter of the pie chart. So, if 6 children make up a quarter of the total, there must be 24 children altogether.**

How do you work out the area of a square or rectangle?	**length x width**	Find the area:  **Area = 12cm x 5cm = 60cm²**
How do you work out the area of a triangle?	**½ x base x height**	Find the area:  **Area = ½ x 12cm x 5cm = ½ x 60 = 30cm²**
How do you work out the volume of a cube or cuboid?	**length x width x height**	Find the volume:  **Volume = 8cm x 5cm x 2cm = 80cm³**
How do you find the perimeter of a shape?	**The perimeter is the total distance around the edge of the shape**	Find the perimeter:  **Don't forget the missing sides! Perimeter = 7cm + 6cm + 2cm + 4cm + 3cm + 4cm + 2cm + 6cm = 34cm**
How do you plot a set of coordinates?	**Remember the phrase:** **Along the corridor, then up the stairs!**	 Plot (2 , 3) and (-4 , 1)

What do the angles in a triangle add up to?	**180°**	Find the size of angle X  **X = 180 – 54 – 38 = 88°**
What do the angles in a quadrilateral add up to?	**360°**	Find the size of angle X  **X = 360 – 100 – 62 – 54 = 144°**
What do the angles on a straight line add up to?	**180°**	Find the size of angle X  **X = 180 – 138 = 42°**

If you'd like a bit more practice, our 11 Plus & SATs Maths Revision Pack covers all of these topics and a few more.

If you just need a little bit more revision in a certain section, we have colour coded the boxes on the answer sheet:

Blue section = 11 Plus & SATs Topic Pack – Number

Green section = 11 Plus & SATs Topic Pack – Fractions, Decimals and Percentages

Yellow section = 11 Plus & SATs Topic Pack – Algebra

Orange section = 11 Plus & SATs Topic Pack – Measures

Pink section = 11 Plus & SATs Topic Pack – Statistics

Purple section = 11 Plus & SATs Topic Pack – Shape

Grey section = 11 Plus & SATs Topic Pack – Positions and Angles