



TALENT POOL ACADEMY



Name:

Year Group:

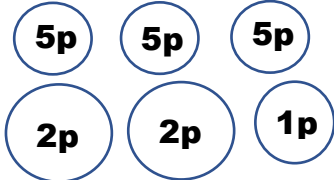



MATHEMATICAL REASONING

BOOK 2

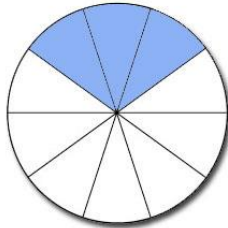
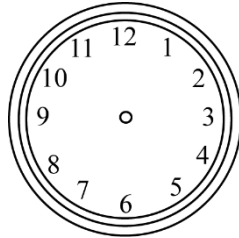

Section 1 | Test 1

A		Answer	C		Answer
1	$7 + 5 + 8 =$	_____	1	What is the 12 th letter of the alphabet?	_____
2	$17p - 9p =$	_____ p	2	A piece of string is 15 cm long. Jessica cuts it into three pieces. How long is each piece?	_____ cm
3	1 hr =	_____ mins	3	How many weeks are there in 21 days?	_____ weeks
4	$\frac{1}{2}$ of 16 =	_____	4	What is the total of three 2ps and three 5ps?	_____ ps
5	Three 2ps =	_____ p	5	What is the difference in length between the longest and the shortest line?	_____ cm
6	$15 \div 2 =$	_____		4cm _____	
7	$9\text{cm} + 3\text{cm} = 4\text{cm} +$	_____ cm		8cm _____	
8	3 times 4 =	_____		2cm _____	_____ cm
9	$2 + 6 = _ - 4$	_____	6	Sarah buys a toy for 5p. She has 6p left. How much money did she have at the start?	_____ ps
10	What time is two hours later?	_____	7	Michael shares 17 sweets with his three friends. How many sweets are left behind?	_____ Sweets
		O'clock	8	Twelve biscuits are taken from a box of twenty. How many are left behind. Write your number as a word.	_____ Biscuits
B		Answers	9	9 times 3 =	_____
1	1hr = 45 min +	_____ mins	10	How many 2, 5 and 10p coins do you need to make 27p?	_____ 2ps _____ 5ps _____ 10ps
2	How many 5ps are worth 35p?	_____ 5ps			
3	Four times the value of a number is equal to 28. What is the number?	_____			
4	Mark shares 26 sweets between his three friends. He eats the rest himself. How many sweets are left for him to eat?	_____ sweets			
5	How many metres are there in 1 km?	_____ m			
6	How many halves are there in 13 whole ones?	_____ halves			
7	Increase 28 by 6	_____			
8	What is the sum of three 2ps and three 5ps?	_____ ps			
9	$\frac{1}{4}$ of 24	_____			
10	$\frac{1}{2}$ of 1 km	_____ m			


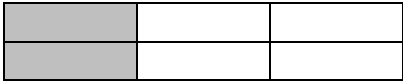

Section 1 | Test 2

A		Answer	C		Answer
1	$\frac{1}{2}$ of 36 =	_____	1	James is 9. How old will he be in 8 years' time?	_____
2	$10p + 7p + 5p =$	_____ p	2	What number must be added to 8 to make 20?	_____
3	Nine 2ps = one 10p +	_____ p	3	How many 10ps have the same value as these coins? 	_____
4	$12 \div 2 =$	_____	4	Ali had 63p, he gave a third of his money to Alan. How much has he got left?	_____ ps
5	$\frac{1}{4}$ of two hours =	_____ mins	5	Which of these shapes is: a. A square? b. A rectangle? 	a _____ b _____
6	$7 + 8 = 10 +$	_____	6	What is the sum of even numbers between 7 and 11?	_____
7	$9\text{cm} \times 3\text{cm} = 12\text{cm} +$	_____ cm	7	What is the total length of the eight strips like this? 	_____ cm
8	$3p + 9p - 5p =$	_____ p	8	How many 4p pencils can be bought with two 10p, one 20p and three 5p coins?	_____
9	$14 \div 2 = 14 -$	_____	9	What four coins altogether equal to 18p?	_____ p _____ p _____ p _____ p
10	$15p - = 8p$	_____ p	10	Write the time in digital form. Use a.m. or p.m.  Morning	_____
B		Answers			
1	Multiply 6 by 9	_____			
2	Divide 27 by 3	_____			
3	Write down the sixth month of the year?	_____			
4	Find the sum of 2 10p and four 5p coins.	_____ p			
5	Write the time "quarter to one" in digit form.	_____			
6	One quarter of 24 is?	_____			
7	Subtract 17p from 25p.	_____ p			
8	How many half-metres together measure 4 and a half metre?	_____			
9	$8 \times 3 = 30 -$	_____			
10	What is the total value of 6p, 3p and 8p?	_____ p			



Section 1 | Test 3

A		Answer	C		Answer						
1	Five 2ps = one 2p and ... 1ps	_____ 1ps	1	Write this date using digits only.	___/___/___						
2	$\frac{1}{4}$ hour + 20 mins =	_____ mins	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Fourth of April 2019 </div>								
3	$9 + 7 - 8 =$	_____	2	Which number is ten times greater than 8?	_____						
4	a. $1\text{ l} =$	a. _____ ml	3	Find the change from two 5ps and two 2ps after spending 20p.	_____ p						
	b. $\frac{1}{4}\text{ l} =$	b. _____ ml	4	Which number is mid-way between 30 and 50?	_____						
5	$15\text{p} - 6\text{p} + 3\text{p} =$	_____	5	What fraction of the circle is shaded?	_____						
6	_____ + 14 = 21	_____									
7	$12\text{p} - 2\text{p} = 7\text{p} +$	_____ p	6	49 Children are asked to stand in groups of seven. How groups will there be?	_____						
8	$3\text{kg} \times 5 = 9\text{kg} +$	_____ kg	7	Find the difference between two sweets costing 2p each and three costing 1p each.	_____ p						
9	$17 - \quad = 11$	_____	8	Choose a time, write it in digit form and draw it on the clock.	_____						
10	$10 \div 2 = 40 \div$	_____									
B		Answers	9	What is the length of the following line if one cm represents 3cm?	_____ cm						
1	Multiply 7 by 3	_____									
2	Write the time quarter past seven in digit form.	_____	10	Which pairs of number multiply together to give 42?	___ & ___						
3	Decrease 27p by 13p.	_____ p	<table border="1" data-bbox="900 1973 1302 2067"> <tbody> <tr> <td>6</td> <td>5</td> <td>14</td> </tr> <tr> <td>3</td> <td>7</td> <td>8</td> </tr> </tbody> </table>			6	5	14	3	7	8
6	5	14									
3	7	8									
4	Five groups of 3, three groups of 5 and two groups of 10. How many altogether?	_____	_____ & _____								
5	How many metres is? a. 300cm b. 450cm	a. _____ m b. _____ m									
6	What is one-third of sixty-three?	_____									
7	Find the sum of $4\frac{1}{2}$, $5\frac{1}{2}$ and 4.	_____									
8	Subtract 9 from 37.	_____									
9	$3 - \frac{1}{3} =$	_____									
10	Which three coins altogether make 12p.	_____ p _____ p _____ p									

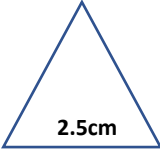
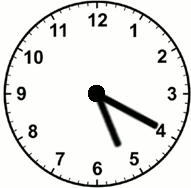

Section 1 | Test 4

A		Answer	C		Answer
1	Round 23 to the nearest 10.	_____	1	Which coin is worth 20 times more than 5p?	_____
2	$20 \times 3 = 12 \times$	_____	2	Which two coins are given in change after spending 35p from 50p?	_____ p _____ p
3	$21 - 8 = 9 +$	_____	3	One squirrel has a mass of $1\frac{1}{2}$ kg. What is the mass of 5 squirrels?	_____ kg
4	$\frac{1}{2}$ of 26kg =	_____ kg	4	How many minutes from quarter to 9 to 20 past nine?	_____ mins
5	Four 5ps + two 2ps = _____ + 12p	_____ p	5	What is the total length of the sides of this rectangle?	_____ cm
6	$7 + 8 = 23 -$	_____			
7	$\frac{1}{3}$ of an hour + 5 mins =	_____ mins	6	What fraction of the rectangle is not shaded? Answer using two different equivalent fractions.	_____
8	$9 \times 7 = 3 \times$	_____			_____
9	$2p + 5p + 3p - 1p =$	_____ p	7	How much more do you need to make 27p if you already have one 2p coins and three 5p coins?	_____ p
10	$4 \times 3 = 4 + 4 +$	_____	8	Candies are priced at 7p for each. Alice wants to buy 4 lollipops. She has 20p, how much more does she need?	_____ p
B		Answers	9	How many children can be given 3 crayons from the box below?	_____
1	Subtract 8 from the total of 9, 5 and 12.	_____			
2	25 plus 4 minus 9 =	_____	10	Karen saves 6p each week. How many weeks will it take so save up 42p?	_____
3	3 tenth of 60p is	_____ p			
4	How many grams is a. 1kg b. 2.5kg	a. _____ b. _____			
5	Find the difference between (3 + 9) and 23	_____			
6	How many centimetres is a. 3m b. 4.5m	a. _____ b. _____			
7	How much less is eight 2ps than four 5ps?	_____ p			
8	Find the value 5 times $3\frac{1}{2}$.	_____			
9	How many whole ones is twenty-four quarters?	_____			
10	Find the product of 7 and 8	_____			

Section 1 | Test 5

A		Answer	C		Answer
1	$37 - 9 =$	_____	1	Write in digits form, the number which is eleven less than a hundred and thirteen.	_____
2	$25p + 6p - 2p =$	_____ p	2	What number is the arrow on the number scale pointing to?	_____
3	$8 \times 3 = 15 +$	_____			_____
4	Nine 10ps = _____ 5ps	_____	3	How many 2ps are equal to the value of three 10ps and four 5ps?	_____ 2ps
5	$12p + 2p + 3p -$ _____ $= 8p$	_____ p	4	In a conference hall 45 chairs, 23 are occupied by boys and rest by girls? How many chairs are occupied by the girls?	_____
6	$9 + 7 = 4 \times$	_____	5	How many strips of the given length can be cut from a half-metre strip?	_____
7	$6 + 7 + 9 = 17 +$	_____		<input type="text" value="cm"/>	_____
8	$56 \div 8 =$	_____	6	Share £18 between Alice and Daniel so that Alice gets twice as much as Daniel. How much does Alice?	_____
9	1kg 600g = _____ g	_____ g	7	By how many metres is 39cm shorter than 1.5m?	_____ m
10	$7 \times 6 =$ _____ tens + 2 units	_____	8	Which of the following numbers is nearest to 60?	_____
B		Answers		<input type="text" value="55"/> <input type="text" value="56"/> <input type="text" value="63"/> <input type="text" value="58"/>	_____
1	Find the sum of 15p, 17p and 28p.	_____ p	9	This clock is 13 mins ahead. Write down the correct time in digit form. Use a.m. or p.m.	_____
2	What is the difference between 5×7 and 9×5 ?	_____			_____
3	28p is shared among 7 children. How much do each get?	_____ p	10	If 29 September is a Monday. What day is 1 st October?	_____
4	Find the sum of the odd numbers between 23 and 29.	_____			_____
5	Subtract 30p for 58p	_____ p			_____
6	How much greater is $5\frac{1}{2}$ than 2 times $2\frac{1}{4}$?	_____			_____
7	$300 + 87 + 9 =$	_____			_____
8	Write the sum of 5 and 3 using roman numbers.	_____			_____
9	Find the product of 9 and 8	_____			_____
10	What will be the cost of 6 lollipops if each is priced at 7p?	_____			_____

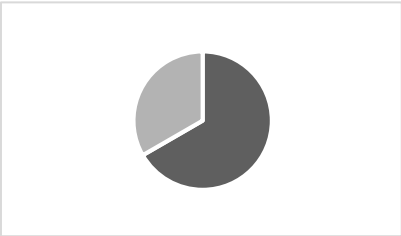
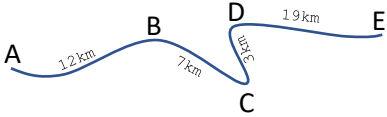

Section 1 | Test 6

A		Answer	C		Answer					
1	$9 \times 4 = 3 \text{ tens} + \quad \text{units}$	_____	1	Find the price of $4\frac{1}{2}$ l of petrol when $\frac{1}{2}$ l costs £1.20.	£ _____					
2	Four 5ps - _____ = 13p	_____ p	2	A container stores 160l of oil. The oil I used to fill 8 cans. How much is in each can?	_____ l					
3	$2p \times 15 = \quad 10ps$	_____	3	What is the total distance around the following equilateral triangle?	_____ cm					
4	$10p \times \quad = \text{Eight } 5ps + \text{Five } 2ps$	_____		_____ cm						
5	$23 + 35 =$	_____								
6	$60p - 37p =$	_____ p	4	How many 20ps are equal to twelve 5ps and ten 2ps?	_____ 20ps					
7	$410 - 55 =$	_____	5	Find the sum of following numbers.	_____					
8	$55 \div 11 =$	_____	<table border="1" data-bbox="900 943 1302 981"> <tr> <td>13</td> <td>17</td> <td>23</td> <td>7</td> <td>5</td> <td>19</td> </tr> </table>		13	17	23	7	5	19
13	17	23	7	5	19					
9	$27 + 19 =$	_____	6	This clock is 13 mins slow. Write the correct time in digit form. Use a.m. or p.m.	_____					
10	$52 \div 14 = 7 -$	_____		_____						
B		Answers								
1	63cm is divided in seven equal parts. What is the length of each part?	_____ cm	7	What is the cost of one bottle if 15 bottles cost £1.80?	_____ p					
2	How many fours equal to 28?	_____	8	What is the difference between $\frac{1}{3}$ of 27 and $\frac{1}{4}$ of 16?	_____					
3	One pen costs 22p. What is the cost of six pens?	_____ p	9	Find the length of the line AB.	_____					
4	Find the product of 8 and 9 and then subtract it from 90.	_____								
5	Find the difference between 78p and 49p.	_____ p	10	Arrange the following decimals in an ascending order.	_____					
6	Take away 43p from £1.	_____ p	<table border="1" data-bbox="900 1962 1302 2000"> <tr> <td>0.2</td> <td>0.5</td> <td>0.05</td> <td>0.51</td> </tr> </table>		0.2	0.5	0.05	0.51		
0.2	0.5	0.05	0.51							
7	$27 + 19 =$	_____	_____							
8	A two-metre rope are divided into 8 equal parts. How long is each part in centimetres?	_____ cm	_____							
9	What is the sum of 17 and 24?	_____	_____							
10	Ali has 33p. He buys a chocolate costing 79p. How much more does he need to pay for the chocolate?	_____ p	_____							

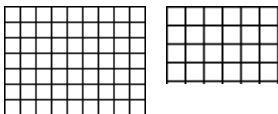
Section 1 | Test 7

A	Answer
1 $\frac{1}{2}$ hours + 45 mins =	___ h ___ mins
2 $32 \div 8 =$	_____
3 1m and 17cm =	_____ cm
4 $\pounds 1.30 - 67\text{p} =$	_____ p
5 $160 + 90 =$	_____
6 $36 \div 6 = 2 \times$	_____
7 1550ml =	_____ ml
8 $9\text{p} \times 4 =$ $10\text{ps} + \text{three } 2\text{ps}$	_____ 10ps
9 $30 + 17 =$	_____
10 Five 15p - p = 68	_____ p

B	Answers					
1 Write the number 965 to the nearest hundred.	_____					
2 Take away 9 times 3 from the product of 6 and 8.	_____					
3 $7 + 250 + 58 =$	_____					
4 What are the next two numbers in the following sequence? <table border="1" style="margin: 5px auto;"><tr><td>150</td><td>175</td><td>200</td><td></td><td></td></tr></table>	150	175	200			_____ _____
150	175	200				
5 Write 17 in Roman numbers.	_____					
6 Add a third of nine to a fourth of 16.	_____					
7 What is the answer if 0 and 9 are multiplied together?	_____					
8 What is amount of the money which is 4 times larger than 19p.	_____ ps					
9 Subtract 17p from the sum of $\pounds 1$ and 5p.	_____					
10 How much more is 6 litres than 1.5 litres?	_____					

C	Answer						
1 The sum of two numbers is 67. If one number is 43, what is the second number?	_____						
2 Alice spent a quarter of his saving on candies. If that quarter is 8p then what is his full saving?	_____ p						
3 Put the following fractions descending order. <table border="1" style="margin: 5px auto;"><tr><td>$\frac{3}{10}$</td><td>$\frac{1}{5}$</td><td>$\frac{4}{10}$</td><td>$\frac{2}{6}$</td></tr></table>	$\frac{3}{10}$	$\frac{1}{5}$	$\frac{4}{10}$	$\frac{2}{6}$	_____ _____ _____		
$\frac{3}{10}$	$\frac{1}{5}$	$\frac{4}{10}$	$\frac{2}{6}$				
4 What is the difference between the 3 in 39 than the 3 in 63?	_____						
5 How many thirds of the following circle is shaded? 	_____						
6 The price of 4 pens is 28p. What is the price of 8 pens?	_____ ps						
7 How much change will Sara receive if she buys 7 biscuit costing 13p each and pays $\pounds 2$?	_____ ps						
8 What will be the total bill if Chris buys 6 doughnuts and 2 wraps? <table border="1" style="margin: 5px auto;"><tr><th>Product</th><th>Doughnuts</th><th>Wraps</th></tr><tr><th>Price</th><td>$\pounds 0.85$</td><td>$\pounds 2.50$</td></tr></table>	Product	Doughnuts	Wraps	Price	$\pounds 0.85$	$\pounds 2.50$	\pounds _____
Product	Doughnuts	Wraps					
Price	$\pounds 0.85$	$\pounds 2.50$					
9 What is the distance between point B and E? 	_____ km						
10 How many complete turns will the second hand take until it's 5:13? 	_____						

Section 1 | Test 8

A		Answer	C		Answer						
1	$\frac{3}{4} + \frac{1}{4} =$	_____	1	Find the difference between the number of squares in the following two grids.	_____						
2	$780 - 360 =$	_____			_____						
3	$65p =$ _____ $10ps +$ one $5p$	_____ $10ps$	2	If two marbles cost $22p$, how much do 5 cost?	_____						
4	$17cm + 59cm = \frac{1}{2}m +$ _____ cm	_____ cm	3	What is the sum of 45 and 63 to the nearest ten?	_____						
5	$\frac{1}{2}$ litres - $270ml =$ _____ ml	_____ ml	4	Following is a table representing Jon's savings How much more does he need to save if he wants to $65p$.	_____ ps						
6	1.25 hours - 35 mins = _____ $mins$	_____ $mins$		<table border="1" data-bbox="896 904 1302 981"> <tr> <td>$10ps$</td> <td>$5ps$</td> <td>$1ps$</td> </tr> <tr> <td>3</td> <td>4</td> <td>3</td> </tr> </table>	$10ps$	$5ps$	$1ps$	3	4	3	_____ ps
$10ps$	$5ps$	$1ps$									
3	4	3									
7	$137cm = 1m +$ _____ cm	_____ cm	5	A truck uses $\frac{1}{2}$ l of petrol every 5 mins. How many literally litres of petrol would it use in one hour?	_____ l						
8	Round 83 to the nearest 10.	_____	6	Put the following fractions in the correct order:	_____, _____						
9	$7 \times 8 = 40 +$ _____	_____		$\begin{array}{r} 5 \ 2 \ 3 \ 9 \ 2 \\ 10 \ 8 \ 8 \ 2 \ 0 \ 3 \end{array}$	_____, _____						
10	$12 \ 5ps =$ _____ $10ps$	_____ $6ps$	7	Arya has two strings. One string measures $5m$, the other measures $8m$. If she makes 5 pieces from the first string and 2 pieces from the second string then what would be the difference in the lengths between the two strings?	_____ m						
B		Answers	8	There are 60 candies in a Jar. Emily ate 12 candies from Monday to Thursday. How many are left?	_____ Sweets						
1	What is 38 more than 18?	_____	9	What would be the change from spending $45p$ and paying in two $5ps$ and three $10ps$?	_____ ps						
2	One-sixth of a number is 7. What is this number?	_____	10	Find the sum of one-fifth of 20 and a third of 18.	_____						
3	What is 4 more than the product of 9 and 6?	_____									
4	Multiply 4 and 9 then subtract 11 from it.	_____									
5	Find $27cm$ less than $\frac{3}{4}m$.	_____ cm									
6	Divide the product of 13 and 4 by 26.	_____									
7	Increase 28 by 6	_____									
8	What will be change given if Katy pays $\pounds 2$ for buying 4 pens costing $36p$ each?	_____ ps									
9	Michael buys a rope 1 metres and 65 centimetres in length. He uses two pieces of $40cm$ from it. What is the length of the rope left?	_____ cm									
10	Write the next two numbers in the sequence. 15, 17, 19, 21,	_____ _____									