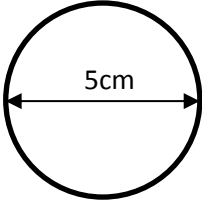
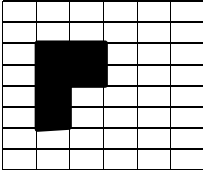
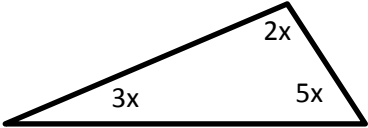
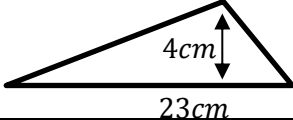
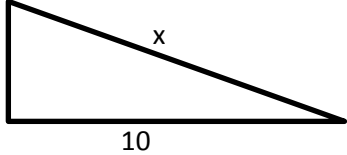
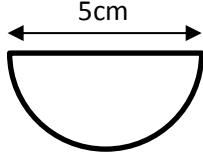
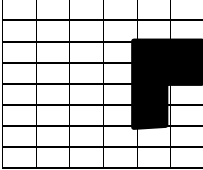
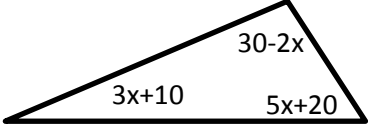
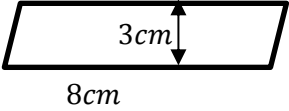
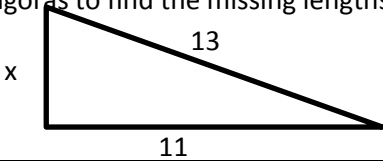


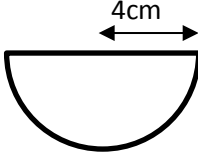
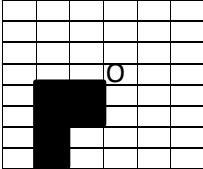
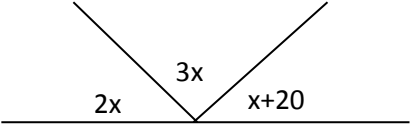
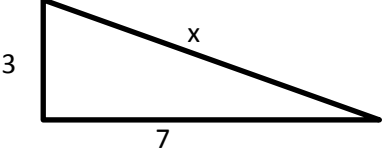
Grade C Practice Sheet 1 – do the calculations in your exercise book and write the answer in the space provided

Number		Find: $4(3x + 2)$		Find the area and circumference of this circle 																											
Jack has £8. This is two thirds of his age. How old is he?		Write down all integers satisfying $-3 \leq x < 4$																													
3 Write 60 as the product of its prime factors		Evaluate the following when $a = 4$ and $b = 3$ $10a - b$		Translate the following shape by the vector $\begin{pmatrix} 3 \\ -1 \end{pmatrix}$ 																											
Calculating																															
Increase £40 by 15%		Find the first three terms in the sequence: $n^2 + 3$																													
Write down the reciprocal of 10		Find nth term of the sequence: 8, 12, 16, 20 ...																													
Estimate the following calculation: $\frac{20.2 \times 5.9}{9.8}$		Complete this table for the function $y = x^2 + 3$																													
Solve: $3x + 8 = 2$		Set up an equation and find x 		Use Trial and Improvement to solve the $x^3 + 2x = 17$ to 1 dp <table border="1" data-bbox="1525 916 1966 1254"> <thead> <tr> <th>x</th> <th>$x^3 + 2x$</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	x	$x^3 + 2x$	Comment	2																							
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Find the mean from this grouped frequency table <table border="1" data-bbox="192 916 779 1102"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>midpoint</th> <th>Midxfreq</th> </tr> </thead> <tbody> <tr> <td>$0 \leq h < 2$</td> <td>5</td> <td></td> <td></td> </tr> <tr> <td>$2 \leq h < 6$</td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>$6 \leq h < 8$</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Mean =	Height	Frequency	midpoint	Midxfreq	$0 \leq h < 2$	5			$2 \leq h < 6$	3			$6 \leq h < 8$	2								Find the area of this triangle in cm^2 									
Height	Frequency	midpoint	Midxfreq																												
$0 \leq h < 2$	5																														
$2 \leq h < 6$	3																														
$6 \leq h < 8$	2																														
Equation Solving Solve: $5x + 3 = 2x + 11$		Use Pythagoras to find the missing length 																													
Solve: $\frac{2x}{3} = 11$																															

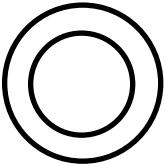
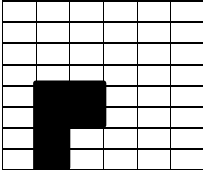
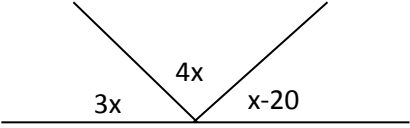
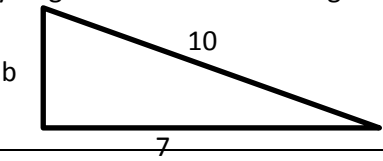
Grade C Practice Sheet 2 – do the calculations in your exercise book and write the answer in the space provided

Number		Find: $x(x + 4)$		Find the area of this semi- circle 																											
Peter spends $\frac{2}{5}$ of his money and has £18 left. How much did he have before?		Represent $-3 \leq x < 2$ on a number line																													
3 Write 120 as the product of its prime factors		Evaluate the following when $a = 5$ and $b = 2$ $3a^2 + 2b$																													
Calculating				Translate the following shape by the vector $\begin{pmatrix} -4 \\ 2 \end{pmatrix}$ 																											
Decrease £300 by 22%		Find the first three terms in the sequence: $10 - n^2$																													
Write down the reciprocal of $\frac{1}{2}$		Find nth term of the sequence: 7,9,11,13 ...																													
Estimate the following calculation: $\frac{3.2^2}{0.49}$		Complete this table for the function $y = 2x^2 + 1$																													
		<table border="1"><tr><td>x</td><td>-1</td><td>0</td><td>1</td><td>2</td></tr><tr><td>y</td><td></td><td></td><td></td><td></td></tr></table>	x	-1	0	1	2	y																							
x	-1	0	1	2																											
y																															
Solve: $12 - 3x = 3$		Set up an equation and find x		Use Trial and Improvement to solve the $x^3 - x = 10$ to 1 dp <table border="1"><thead><tr><th>x</th><th>$x^3 - x$</th><th>Comment</th></tr></thead><tbody><tr><td>2</td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></tbody></table>	x	$x^3 - x$	Comment	2																							
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Height	Frequency	midpoint	Mid×freq																												
$0 \leq h < 3$	3																														
$3 \leq h < 6$	5																														
$6 \leq h < 9$	2																														
Mean =																															
Equation Solving Solve: $4x - 3 = 8x - 15$		Use Pythagoras to find the missing lengths																													
Solve: $\frac{x}{3} + 1 = 11$																															

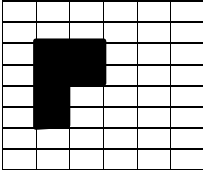
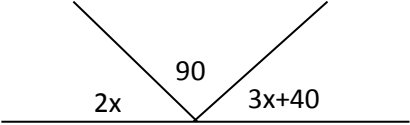
Grade C: Core Practice Sheet 3

<p>Number</p>		<p>Simplify: $3 + 2(3x + 4)$</p>		<p>Find the Perimeter of this semi-circle</p>																
<p>Simon and Sally shares £300 in the ratio 11: 19. How much does Simon receive?</p>		<p>Solve: $\frac{3x}{2} < 6$</p>																		
<p>3 Write 72 as the product of its prime factors</p>		<p>Evaluate the following when $a = 5$ and $b = 4$</p>																		
<p>Calculating</p>		<p>$ab + 3b$</p>																		
<p>Increase £32 by 5%</p>		<p>Which is the first negative term in the sequence $90 - n^2$</p>		<p>Rotate 90° clockwise about the point O</p>																
<p>Find $23 \div 0.1$ without a calculator</p>		<p>Find nth term of the sequence: 14, 10, 6, 2 ...</p>																		
<p>Estimate the following calculation: $3.2 + 5.7 \times 1.9$</p>		<p>Complete this table for the function $y = x^2 + x$</p> <table border="1" data-bbox="819 730 1415 807"> <tr> <td>x</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	x	-1	0	1	2	y												
x	-1	0	1	2																
y																				
<p>Solve: $5(x + 2) = 11$</p>		<p>Set up an equation and find x</p>		<p>Pauline travels between 11.45am and 13.05 pm at a speed of 12mph. How far does she travel?</p>																
<p>Estimate the mean from this grouped frequency table</p> <table border="1" data-bbox="192 954 784 1104"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>Midpoint</th> <th>Mid×freq</th> </tr> </thead> <tbody> <tr> <td>$2 \leq h < 3$</td> <td>7</td> <td></td> <td></td> </tr> <tr> <td>$3 \leq h < 4$</td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>$4 \leq h < 5$</td> <td>5</td> <td></td> <td></td> </tr> </tbody> </table>	Height	Frequency	Midpoint	Mid×freq	$2 \leq h < 3$	7			$3 \leq h < 4$	3			$4 \leq h < 5$	5						<p>Sam tosses a coin 10 times and gets 3 heads. Write down the relative frequency of getting a head.</p>
Height	Frequency	Midpoint	Mid×freq																	
$2 \leq h < 3$	7																			
$3 \leq h < 4$	3																			
$4 \leq h < 5$	5																			
<p>Mean =</p>		<p>What is the sum of the EXTERIOR ANGLES OF A POLYGON?..... One exterior angle of a regular polygon is equal to 36°, how many sides must it have?.....</p>		<p>The probability of getting PINK on a spinner is 0.32. How many times would YOU EXPECT to get PINK if you spin the spinner 300 times?</p>																
<p>Equation Solving</p> $\frac{10}{x} = 2$		<p>Use Pythagoras to find the missing length</p> 																		
<p>Simplify $5^7 \times 5^{11}$</p>																				

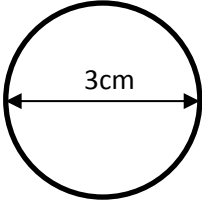
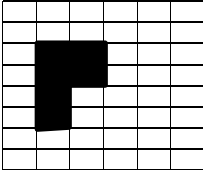
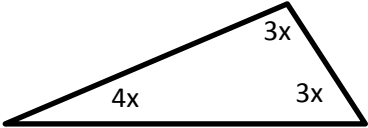
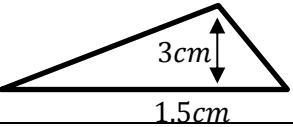
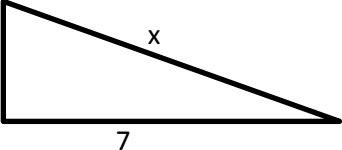
Grade C: Core Practice Sheet 4

<p>Number</p>		<p>Simplify: $5 - 3(x - 2)$</p>		<p>Find the area of the following ring in terms of π The outer circle has a radius of 4 The inner circle has a radius of 3</p> 															
<p>Tom's ratio of goals scored to matches played is 7:12. Pauls' is 5:9. Who has the better record?</p>		<p>Solve: $5x + 3 > 2x + 12$</p>																	
<p>Write 105 is the product of its prime factors</p>		<p>Evaluate the following when $a = 5$ and $b = -4$ ab^2</p>																	
<p>Calculating</p>				<p>Translate this shape by the vector $\begin{pmatrix} 2 \\ 2 \end{pmatrix}$</p> 															
<p>Reduce £40 by 18%</p>		<p>What is the first term above 100 in the sequence $n^3 + 40$</p>																	
<p>Write down the reciprocal of $\frac{2}{3}$</p>		<p>Find nth term of the sequence: 4, 8, 12, 16 ...</p>																	
<p>Estimate the following calculation: $\frac{4.1 + 2.2^2}{0.49}$</p>		<p>Complete this table for the function $y = 2x^2$</p> <table border="1" data-bbox="819 730 1413 804"> <tr> <td>x</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	x	-1	0	1	2	y											
x	-1	0	1	2															
y																			
<p>Solve: $12 - 0.5x = x$</p>		<p>Set up an equation and find x</p> 	<p>Samantha travels 7 miles in 6 minutes. What is her average speed?</p>																
<p>Estimate the mean from this grouped frequency table</p> <table border="1" data-bbox="192 954 786 1102"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>Midpoint</th> <th>Mid×freq</th> </tr> </thead> <tbody> <tr> <td>$1 \leq h < 2$</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>$2 \leq h < 3$</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>$3 \leq h < 4$</td> <td>1</td> <td></td> <td></td> </tr> </tbody> </table> <p>Mean =</p>	Height	Frequency	Midpoint	Mid×freq	$1 \leq h < 2$	2			$2 \leq h < 3$	2			$3 \leq h < 4$	1				<p>What is one interior angle of a regular PENTAGON equal to?</p>	<p>Five people have a mean height of 1.2m. A person with a height of 1.8m arrives. What is the new mean height?</p>
Height	Frequency	Midpoint	Mid×freq																
$1 \leq h < 2$	2																		
$2 \leq h < 3$	2																		
$3 \leq h < 4$	1																		
<p>Solve: $\frac{5x}{2} - 1 = 3$</p>		<p>Use Pythagoras to find the missing length</p> 	<p>On a spinner with only Red and Green sections. $p(\text{red}) = 0.2$. How many Green would you expect with 20 throws?</p>																

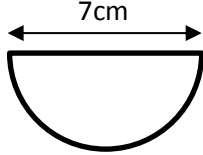
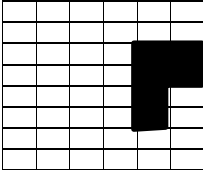
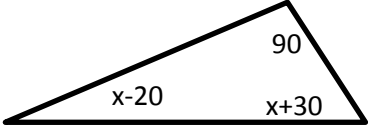

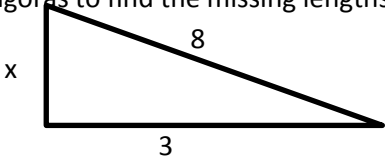
Grade C: Core Practice Sheet 5

Number		Simplify: $3x - 2(4x - 9)$		A bike wheel has a radius of 26cm. a) What is the circumference b) How many times would it have rotated if the bike has travelled 3km?																
Carl mixes white and red paint in the ratio 7:18. What percentage of the paint is white?		Solve: $15 - 2x > 7$																		
Write 138 as the product of its prime factors		Evaluate the following when $a = 5$ and $b = -3$ $b^3 + a$																		
Calculating																				
A TV rises from £320 to £368. What is the percentage increase?		Is the third term in the sequence $19 - 3n$ prime?		Translate this shape by the vector $\begin{pmatrix} 3 \\ -1 \end{pmatrix}$ 																
Write down the reciprocal of 0.2		Find nth term of the sequence: 23, 17, 11, 5																		
Estimate the following calculation: $\frac{1.2 + 7.9 \times 1.9}{0.19}$		Complete this table for the function $y = x^2 - x$ <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>x</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	x		-1	0	1	2	y											
x	-1	0	1	2																
y																				
Solve: $1.2x + 8 = 0.7x$		Set up an equation and find x 		Mike leaves for work at 7.00 and needs to arrive by 9.15. His average speed is 40mph. Will he arrive if the distance is 95 miles? If not, how close will he be?																
Estimate the mean from this grouped frequency table <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>Midpoint</th> <th>Mid×freq</th> </tr> </thead> <tbody> <tr> <td>$0 \leq h < 2$</td> <td>43</td> <td></td> <td></td> </tr> <tr> <td>$2 \leq h < 4$</td> <td>27</td> <td></td> <td></td> </tr> <tr> <td>$4 \leq h < 6$</td> <td>30</td> <td></td> <td></td> </tr> </tbody> </table>	Height	Frequency	Midpoint	Mid×freq	$0 \leq h < 2$	43			$2 \leq h < 4$	27			$4 \leq h < 6$	30				Is it possible for the exterior angle of a regular polygon to equal 40° . If so, how many sides does it have?		Three numbers have a mode of 3 and a mean of 10. What are the three numbers?
Height	Frequency	Midpoint	Mid×freq																	
$0 \leq h < 2$	43																			
$2 \leq h < 4$	27																			
$4 \leq h < 6$	30																			
Mean =																				
Solve: $\frac{12}{3x} + 1 = 15$		Use Pythagoras to find the possible heights of a isosceles triangle which has one side equal to 6cm and another side equal to 5cm		Sarah rolls a biased dice 20 times and gets a six 4 times. Write down the relative frequency of getting a six as a decimal																

Grade C Practice Sheet 6 – do the calculations in your exercise book and write the answer in the space provided

Number		Expand: $4(5x + 2y)$		Find the area and circumference of this circle 																								
Paul loses $\frac{3}{4}$ of his money and has £300 left. How much did he have?		Write down all integers satisfying $-3.2 \leq x < 4.1$																										
3 Write 110 as the product of its prime factors		Evaluate the following when $a = 4$ and $b = 7$ $10ab$																										
Calculating				Translate the following shape by the vector $\begin{pmatrix} -1 \\ -1 \end{pmatrix}$ 																								
Decrease £55 by 98%		Find the first three terms in the sequence: $n^3 + 1$																										
Write down the reciprocal of 0.3 as a fraction		Find nth term of the sequence: 7,11,15,19 ...																										
Estimate the following calculation: $\frac{9.1 - 2.3}{0.24}$		Complete this table for the function $y = x^2 - 1$																										
Solve: $0.2x + 5 = 7$		Set up an equation and find x 																										
Find the mean from this grouped frequency table		Find the area of this triangle in cm^2 		Use Trial and Improvement to solve the $x^3 + x = 11$ to 1 dp <table border="1" data-bbox="1525 916 1966 1254"> <thead> <tr> <th>x</th> <th>$x^3 + 2x$</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	x	$x^3 + 2x$	Comment	2																				
x	$x^3 + 2x$	Comment																										
2																												
Equation Solving Solve: $5x + 3 = 12 - 4x$		Use Pythagoras to find the missing length 																										
Solve: $\frac{3x}{2} - 1 = 4$																												

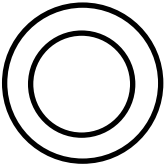
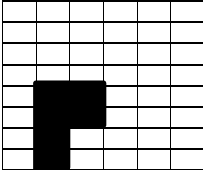
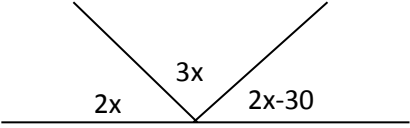
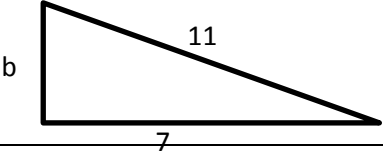
Grade C Practice Sheet 7 – do the calculations in your exercise book and write the answer in the space provided

Number		Find: $x(x - 2)$		Find the area of this semi- circle 																										
Pam gets $\frac{1}{5}$ of 10 kg cake. Paul gets $\frac{3}{8}$ of what is left. How much more does Paul get?		Represent $x < 5$ on a number line																												
3 Write 300 as the product of its prime factors		Evaluate the following when $a = 2$ and $b = 3$ $a^2 - ab$																												
Calculating				Translate the following shape by the vector $\begin{pmatrix} -4 \\ -1 \end{pmatrix}$ 																										
Decrease £350 by 13%		Find the first three terms in the sequence: $2 - n$																												
Write down the reciprocal of $\frac{2}{3}$ as a decimal		Find nth term of the sequence: 6, 7.5, 9, 10.5 ...																												
Estimate the following calculation: $\frac{9.8}{0.49^2}$		Complete this table for the function $y = 2x^2$																												
Solve: $15 - 2x = 12$		Set up an equation and find x																												
Find the mean from this grouped frequency table			Use Trial and Improvement to solve the $x^3 - x = 20$ to 1 dp <table border="1" data-bbox="1525 919 1966 1257"> <thead> <tr> <th>x</th> <th>$x^3 - x$</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	x	$x^3 - x$	Comment	2																							
x	$x^3 - x$	Comment																												
2																														
<table border="1" data-bbox="192 919 781 1107"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>midpoint</th> <th>Mid×freq</th> </tr> </thead> <tbody> <tr> <td>$0 \leq h < 3$</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>$3 \leq h < 6$</td> <td>7</td> <td></td> <td></td> </tr> <tr> <td>$6 \leq h < 9$</td> <td>1</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Mean =	Height	Frequency	midpoint	Mid×freq	$0 \leq h < 3$	2			$3 \leq h < 6$	7			$6 \leq h < 9$	1								Find the area of this parallelogram in cm^2 								
Height	Frequency	midpoint	Mid×freq																											
$0 \leq h < 3$	2																													
$3 \leq h < 6$	7																													
$6 \leq h < 9$	1																													
Equation Solving $Solve: 15 - 10x = 0$		Use Pythagoras to find the missing lengths																												
$Solve: \frac{12}{x} = 4$																														

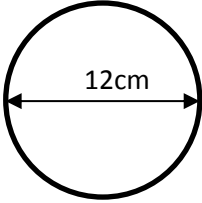
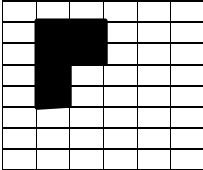
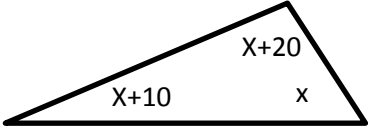
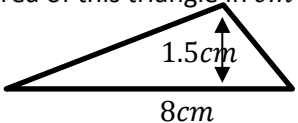
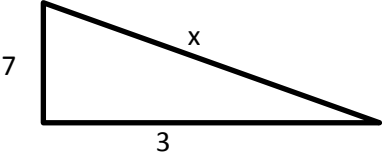
Grade C: Core Practice Sheet 8

<p>Number</p>		<p>Simplify: $x + 3x(x + 2)$</p>		<p>Find the Perimeter of this semi-circle</p> <div data-bbox="1554 352 1753 507" style="text-align: center;"> </div>																
<p>Mike and Kim shares £120 in the ratio 3: 5. How much does Kim receive?</p>		<p>Solve: $2x + 7 < 13$</p>																		
<p>Write 138 as the product of its prime factors</p>		<p>Evaluate the following when $a = 2$ and $b = 0.5$ $10b + 3a$</p>																		
<p>Calculating</p>			<p>Which is the first negative term in the sequence $30 - 7n$</p>																	
<p>Increase £40 by 1.5%</p>		<p>Find nth term of the sequence: $17, 15, 13, 11 \dots$</p>		<p>Rotate 180° about the point O</p>																
<p>Estimate the following calculation: $19.7 - 3.6 \times 1.9$</p>		<p>Complete this table for the function $y = x^2 + 2x$</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>x</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	x	-1	0	1	2	y						<div data-bbox="1585 592 1787 762" style="text-align: center;"> </div>						
x	-1		0	1	2															
y																				
<p>Solve: $3 + 2(x + 1) = 15$</p>		<p>A regular polygon has 8 sides.</p>		<p>Simon Slow travels 300m in ten minutes. Find his speed in km/hour</p>																
<p>Estimate the mean from this grouped frequency table</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>Midpoint</th> <th>Mid×freq</th> </tr> </thead> <tbody> <tr> <td>$2 \leq h < 3$</td> <td>1</td> <td></td> <td></td> </tr> <tr> <td>$3 \leq h < 5$</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>$5 \leq h < 9$</td> <td>2</td> <td></td> <td></td> </tr> </tbody> </table> <p>Mean =</p>	Height	Frequency	Midpoint	Mid×freq	$2 \leq h < 3$	1			$3 \leq h < 5$	2			$5 \leq h < 9$	2				<p>How large is one of its exterior angles?</p> <p>How large is one of its interior angles?</p>		<p>Sam tosses a coin 100 times and gets 33 heads. Write down the relative frequency of getting a tail.</p>
	Height	Frequency	Midpoint	Mid×freq																
$2 \leq h < 3$	1																			
$3 \leq h < 5$	2																			
$5 \leq h < 9$	2																			
<p>Equation Solving</p> $\frac{10}{3x} = 5$		<p>Use Pythagoras to find the missing length</p> <div data-bbox="891 1209 1272 1369" style="text-align: center;"> </div>		<p>On a biased coin, the probability of getting a head is 0.7. How many tails would you expect to get if you toss the coin 30 times?</p>																
<p>Simplify $3^{12} \div 3^4$</p>																				

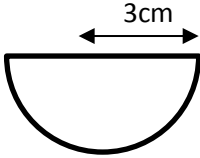
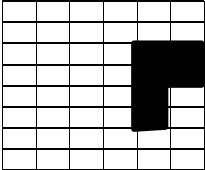
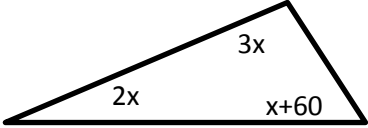
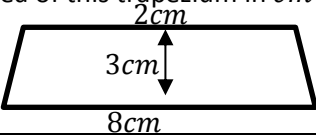
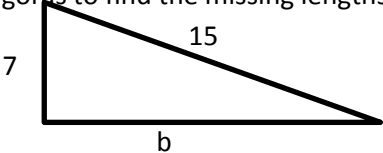
Grade C: Core Practice Sheet 9

<p>Number</p>		<p>Simplify: $5 - 3(2x - 7)$</p>		<p>Find the area of the following ring in terms of π The outer circle has a radius of 7cm The inner circle has a radius of 2cm</p> 																
<p>Tom's ratio of goals scored to matches played is 3:4. Pauls' is 5:7. Who has the better record?</p>		<p>Solve: $4x + 3 > 7x - 13$</p>																		
<p>Write 99 is the product of its prime factors</p>		<p>Evaluate the following when $a = 4$ and $b = -2$ $(ab)^2$</p>																		
<p>Calculating</p>		<p>What is the first term above 50 in the sequence $n^2 + 2$</p>		<p>Translate this shape by the vector $\begin{pmatrix} 3 \\ 2 \end{pmatrix}$</p> 																
<p>A £400 car depreciates by 15%. What is it now worth?</p>		<p>Find nth term of the sequence: $14, 20, 26, \dots$</p>																		
<p>Estimate the following calculation: $\frac{3.1^3}{9.8}$</p>		<p>Complete this table for the function $y = x^3$</p> <table border="1" data-bbox="819 730 1415 804"> <tr> <td>x</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	x		-1	0	1	2	y											
x	-1	0	1	2																
y																				
<p>Solve: $3 - 2x = 8x$</p>		<p>Set up an equation and find x</p> 		<p>Samantha travels 3 miles in 2 minutes. What is her average speed in mph?</p>																
<p>Estimate the mean from this grouped frequency table</p> <table border="1" data-bbox="192 954 786 1102"> <thead> <tr> <th>Height</th> <th>Frequency</th> <th>Midpoint</th> <th>Mid×freq</th> </tr> </thead> <tbody> <tr> <td>$1 \leq h < 2$</td> <td>5</td> <td></td> <td></td> </tr> <tr> <td>$2 \leq h < 3$</td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>$3 \leq h < 4$</td> <td>2</td> <td></td> <td></td> </tr> </tbody> </table> <p>Mean =</p>	Height	Frequency	Midpoint	Mid×freq	$1 \leq h < 2$	5			$2 \leq h < 3$	3			$3 \leq h < 4$	2				<p>A regular polygon has an interior angle of 178 degrees. How many sides does it have?</p>		<p>The mean weight of 4 people is 70kg. One of person who has a weight of 40kg leaves the room. What is the new mean weight of the people?</p>
Height	Frequency	Midpoint	Mid×freq																	
$1 \leq h < 2$	5																			
$2 \leq h < 3$	3																			
$3 \leq h < 4$	2																			
<p>Solve: $\frac{3x}{5} - 4 = 6$</p>		<p>Use Pythagoras to find the missing length</p> 		<p>A spinner has three colours red, green and blue with areas in the ratio of 1:2:5. How many red's would you expect if you spin it 160 times?</p>																

Grade C Practice Sheet 10 – do the calculations in your exercise book and write the answer in the space provided

Number		Expand: $5(3x + 1) + 2$		Find the area and circumference of this circle 																							
Mike eats half of a cake. Simon eats 10% of what is left. What percentage of cake is left for Sally?		Represent: $x > 2$ on a number line																									
3 Write 140 as the product of its prime factors		Evaluate the following when $a = 4$ and $b = 3$ $a^2 + 2b$																									
Calculating				Translate the following shape by the vector $\begin{pmatrix} 2 \\ -3 \end{pmatrix}$ 																							
Increase £320 by 22%		Find the first three terms in the sequence: $12 - 3n$																									
Write down the reciprocal of 0.5		Find nth term of the sequence: 5,9,13,17,21 ...																									
Estimate the following calculation: $\frac{4.9^2}{0.49}$		Complete this table for the function $y = x^2 - 1$																									
Solve: $5x + 3 = -7$		Set up an equation and find x																									
Horatio catches 25 fish between 11.00 and 13.30. What is the mean number of fish he catches per hour?			Use Trial and Improvement to solve the $x^3 + x = 25$ <table border="1" data-bbox="1525 914 1966 1251"> <thead> <tr> <th>x</th> <th>$x^3 + x$</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	x	$x^3 + x$	Comment	2																				
x	$x^3 + x$	Comment																									
2																											
		Find the area of this triangle in cm^2 																									
Equation Solving Solve: $4x + 2 = 7 - 2x$		Use Pythagoras to find the missing length 																									
Solve: $\frac{5x}{7} + 1 = 11$																											

Grade C Practice Sheet 11 – do the calculations in your exercise book and write the answer in the space provided

Number		Find: $2(x + 3) + 4(2x - 7)$		Find the area of this semi-circle 																											
Pink paint is made by mixing red and white in the ratio 7:13. What percentage is red?		Represent $x > 6$ on a number line																													
3 Write 56 as the product of its prime factors		Evaluate the following when $a = 3$ and $d = -2$ $ad + 5a$																													
Calculating				Translate the following shape by the vector $\begin{pmatrix} -3 \\ -1 \end{pmatrix}$ 																											
Increase £40 by 12%		Find the first three terms in the sequence: 5^n																													
Write down the reciprocal of 0.25		Find nth term of the sequence: $-3, 2, 7, 12, \dots$																													
Estimate the following calculation: $\frac{5.2 + 11}{2.2}$		Complete this table for the function $y = 5 + x^2$																													
Solve: $11(x - 2) + 1 = 3$		Set up an equation and find x																													
Find the mean from this grouped frequency table				Use Trial and Improvement to solve the $x^3 + 2x = 20$ to 1 dp <table border="1" data-bbox="1527 916 1966 1254"> <thead> <tr> <th>x</th> <th>$x^3 + 2x$</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	x	$x^3 + 2x$	Comment	2																							
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Height	Frequency	midpoint	Mid×freq																												
$0 \leq h < 4$	8																														
$4 \leq h < 6$	1																														
$6 \leq h < 8$	1																														
Equation Solving Solve: $4(x + 2) = 3(x - 7)$		Use Pythagoras to find the missing lengths 																													
Solve: $\frac{2x}{5} = 11$																															