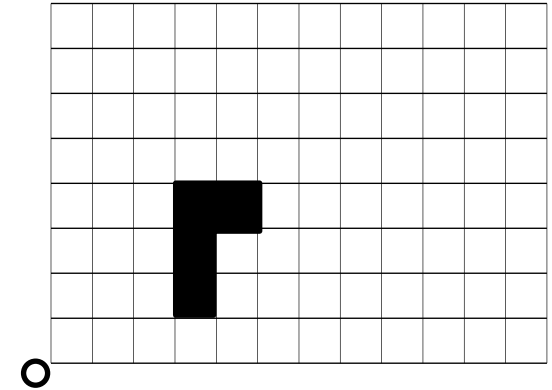
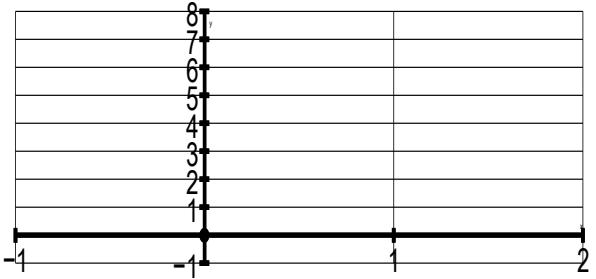
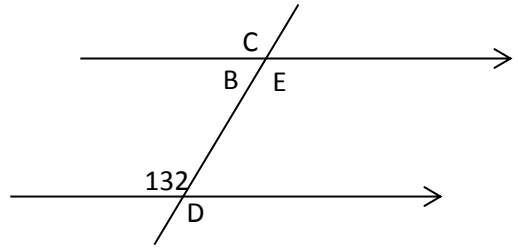


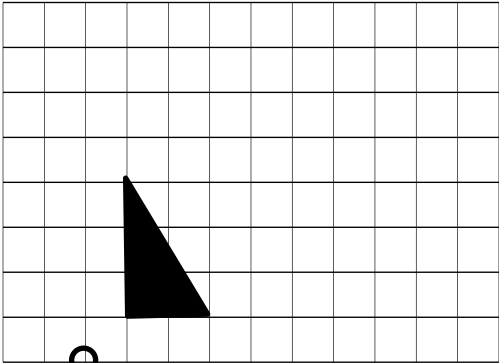
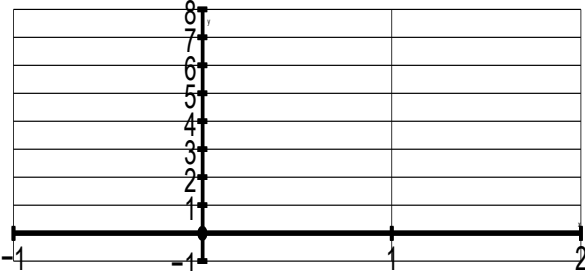
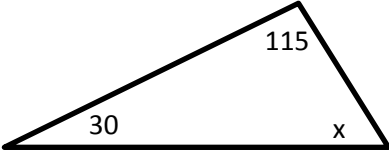
Grade D Practice sheet 1 – do your calculations in your exercise book

Number		6 Complete the table for: $y = 3x + 2$																																																		
1.1 Find the 12 <sup>th</sup> square number		<table border="1" style="margin: auto; border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><math>x</math></td><td style="padding: 2px 10px;">0</td><td style="padding: 2px 10px;">1</td><td style="padding: 2px 10px;">2</td></tr> <tr><td style="padding: 2px 10px;"><math>y</math></td><td></td><td></td><td></td></tr> </table>	$x$	0	1	2	$y$				Enlarge by a scale factor of 2, using O as the centre of enlargement																																									
$x$	0	1	2																																																	
$y$																																																				
1.2 Find the 3 <sup>rd</sup> cube number																																																				
Calculating																																																				
2 Share £40 into the ratio 1:7																																																				
3.1 Find: $\frac{1}{4}$ of £60		Plot the graph																																																		
3.2 Evaluate: $\frac{1}{4} + \frac{2}{3}$																																																				
3.3 Evaluate: $\frac{2}{5} - \frac{1}{10}$			Samantha rolls two dice and adds the scores together. Complete the table below to show all possible outcomes																																																	
3.4 Find: $7 \div \frac{1}{2}$			<table border="1" style="margin: auto; border-collapse: collapse;"> <tr><td></td><td style="padding: 2px 10px;">1</td><td style="padding: 2px 10px;">2</td><td style="padding: 2px 10px;">3</td><td style="padding: 2px 10px;">4</td><td style="padding: 2px 10px;">5</td><td style="padding: 2px 10px;">6</td></tr> <tr><td style="padding: 2px 10px;">1</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px 10px;">2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px 10px;">3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px 10px;">4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px 10px;">5</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px 10px;">6</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>		1	2	3	4	5	6	1							2							3							4							5							6						
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1																																																				
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4																																																				
5																																																				
6																																																				
Algebra:		8 What quadrilateral has just one pair of parallel sides Answer.....																																																		
4.1 Solve: $5x - 2 = 23$		9.																																																		
4.1 Solve $\frac{x}{5} = 11$																																																				
5.2 Find the first three terms of the sequence given by $5n-2$		Which angles equal $132^\circ$																																																		
5.3 Which term is 102 in the sequence: $5n + 2$		What size is angle B																																																		
			In summer, the probability it rains is 0.2. What is the probability that it does NOT rain?																																																	

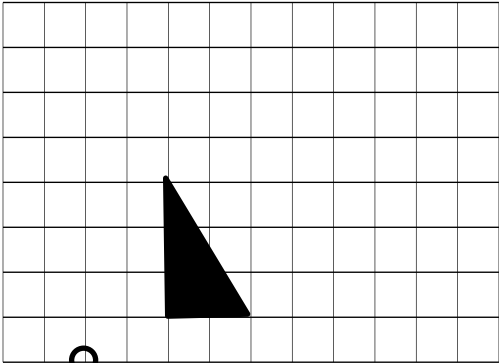
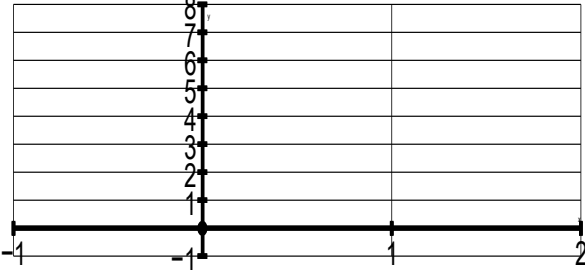
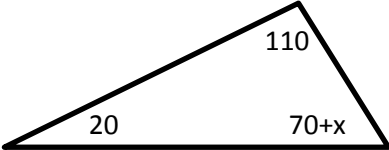
Grade D Practice sheet 2 – do your calculations in your exercise book

Number		6 Complete the table for: $y = 4x - 1$	Enlarge by a scale factor of 2, using O as the centre of enlargement																					
1.1 Find the 13 <sup>th</sup> square number																								
1.2 Write down 5 <sup>th</sup> cube number		<table border="1"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>		$x$	0	1	2	$y$																
$x$	0	1		2																				
$y$																								
Calculating		Plot the graph																						
2 Share £90 into the ratio 1:5																								
3.1 Find: $\frac{2}{3}$ of £90																								
3.2 Evaluate: $\frac{3}{5} - \frac{1}{3}$			Jack tosses a coin and rolls a dice. Complete this table to show all possible outcomes																					
3.3 Evaluate: $\frac{3}{20} + \frac{1}{2}$			<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>H</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>T</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								H							T						
H																								
T																								
3.4 Find: $4 \div \frac{1}{3}$																								
Algebra:		8 What quadrilateral has exactly one pair of parallel sides Answer.....																						
4.1 Solve: $3x + 21 = 42$		9.																						
4.1 Solve $\frac{x}{7} = 2$																								
5.2 Find the first three terms of the sequence given by $3n+1$		Which angle is alternate to angle A																						
5.3 Is the number 52 in the sequence given by $5n + 3$		Which angle is corresponding to angle A																						
			A spinner has three colours. Find the missing probability: <table border="1"> <tr> <td>Colour</td> <td>red</td> <td>green</td> <td>Blue</td> </tr> <tr> <td>Prob.</td> <td>0.3</td> <td>0.5</td> <td>?</td> </tr> </table>	Colour	red	green	Blue	Prob.	0.3	0.5	?													
Colour	red	green	Blue																					
Prob.	0.3	0.5	?																					

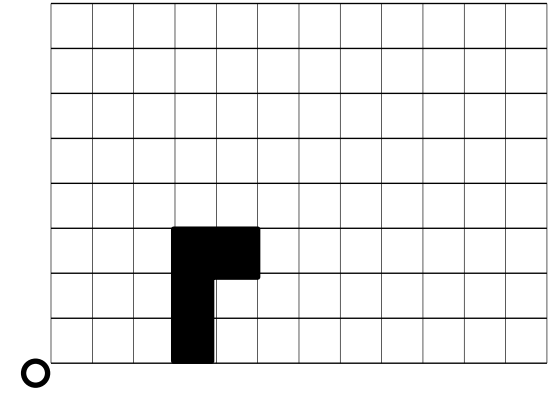
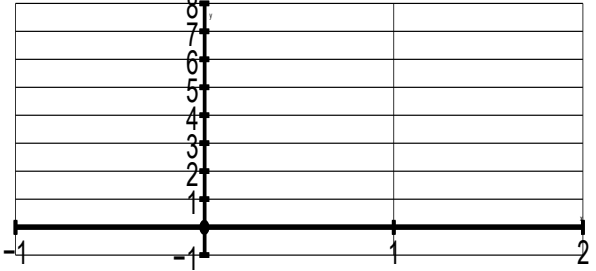
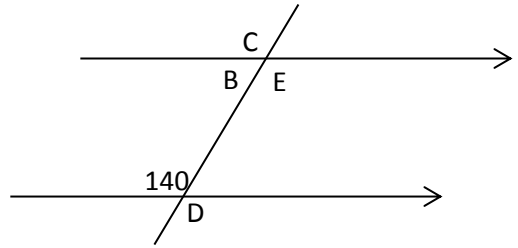
Grade D Core Skills Practice Sheet 3

<p><b>Number</b></p>		<p>6 Complete the table for:</p>	<p>Enlarge by a scale factor of 2, using O as the centre of enlargement</p>								
<p>1.1 What is the first square number above 130</p>		<p style="text-align: center;"><math>y = -2x + 6</math></p>									
<p>1.2 Write down <math>\sqrt{169}</math></p>		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 2px 10px;"><math>x</math></td> <td style="padding: 2px 10px;">0</td> <td style="padding: 2px 10px;">1</td> <td style="padding: 2px 10px;">2</td> </tr> <tr> <td style="padding: 2px 10px;"><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>	$x$	0	1	2	$y$				
$x$	0	1	2								
$y$											
<p>Calculating</p>											
<p>2 Share £25 into the ratio 2:3</p>		<p>Plot the graph</p>									
<p>3.1 Find:</p> <p style="text-align: center;"><math>\frac{3}{10}</math> of £6</p>											
<p>3.2 Evaluate:</p> <p style="text-align: center;"><math>\frac{1}{5} + \frac{3}{4}</math></p>											
<p>3.3 Evaluate:</p> <p style="text-align: center;"><math>\frac{1}{5} - \frac{3}{10}</math></p>											
<p>3.4 Find:</p> <p style="text-align: center;"><math>8 \times \frac{3}{4}</math></p>			<p>Tim has a spinner with three colours on it. Red, Green and Brown.</p> <p style="text-align: center;"><math>p(\text{red}) = \frac{3}{10}</math></p> <p style="text-align: center;"><math>p(\text{green}) = \frac{2}{5}</math></p> <p>What is the probability of getting a brown?</p>								
<p><b>Algebra:</b></p>		<p>8 What do angles in a parallelogram add up to?</p>									
<p>4.1 Solve: <math>10 - 3x = 4</math></p>		<p>9. Find <math>x</math></p>									
<p>4.1 Solve</p> <p style="text-align: center;"><math>\frac{x}{3} + 1 = 3</math></p>											
<p>5.2 Find the first three terms of the sequence given by the formula <math>10-2n</math></p>			<p>A 3-D shape looks like a circle from any perspective. What shape must it be?</p>								

Grade D Core Skills Practice Sheet 4

<p><b>Number</b></p>		<p>6 Complete the table for:</p>	<p>Enlarge by a scale factor of 2, using O as the centre of enlargement</p>								
<p>1. What are the closest integers that <math>\sqrt{105}</math> lies between</p>		<p style="text-align: center;"><math>y = 5 - x</math></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>	$x$	0	1	2	$y$				
$x$	0	1	2								
$y$											
<p>Calculating</p>											
<p>2 Share £140 into the ratio 3:4</p>											
<p>3.1 Find: <math>\frac{4}{25}</math> of £300</p>		<p>Plot the graph</p> 									
<p>3.2 Evaluate: <math>\frac{2}{7} + \frac{3}{4}</math></p>											
<p>3.3 Evaluate: <math>\frac{1}{3} - \frac{3}{4}</math></p>											
<p>3.4 Find: <math>120 \times \frac{5}{6}</math></p>											
<p><b>Algebra:</b></p>		<p>8. What is the rotational symmetry of a pentagon?</p>	<p>Peter has a spinner with two colours, red and blue. The probability of getting a red and blue are in the ratio 2:3. Complete the following:</p> <p style="text-align: center;"><math>P(\text{red}) =</math></p> <p style="text-align: center;"><math>P(\text{blue}) =</math></p>								
<p>4.1 Solve: <math>2 + 3x = -4</math></p>		<p>9. Find <math>x</math></p>									
<p>4.1 Solve <math>\frac{3x}{2} = 15</math></p>											
<p>5.2 Find the 5<sup>th</sup> term of the sequence given by the formula <math>15 + 3n</math></p>			<p>Suggest two numbers to make the following correct:</p> <p style="text-align: center;"><math>-17 - \square = -2</math></p>								

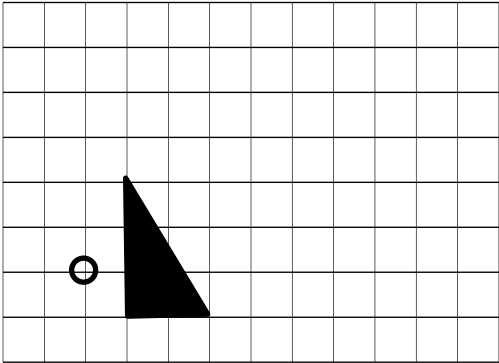
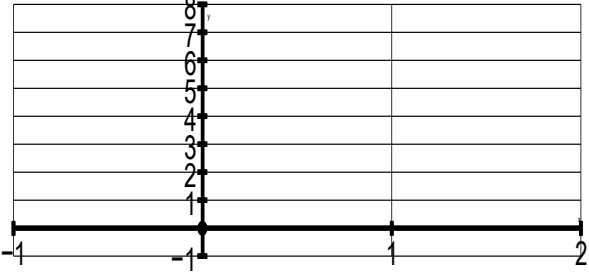
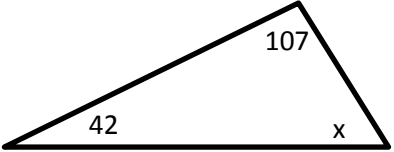
Grade D Practice sheet 5 – do your calculations in your exercise book

Number		6 Complete the table for: $y = 2x + 3$	Enlarge by a scale factor of 2, using O as the centre of enlargement																																																	
1.1 Find the 16 <sup>th</sup> square number		<table border="1"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>		$x$	0	1	2	$y$																																												
$x$	0	1	2																																																	
$y$																																																				
1.2 Find the 5 <sup>th</sup> cube number																																																				
Calculating																																																				
2 Share £32 into the ratio 3:5			Samantha rolls two dice and finds the difference in the scores. Complete the table below to show all possible outcomes																																																	
3.1 Find: $\frac{3}{4}$ of £60		Plot the graph																																																		
3.2 Evaluate: $\frac{1}{5} + \frac{3}{4}$			<table border="1"> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		1	2	3	4	5	6	1							2							3							4							5							6						
	1	2		3	4	5	6																																													
1																																																				
2																																																				
3																																																				
4																																																				
5																																																				
6																																																				
3.3 Evaluate: $\frac{3}{12} - \frac{1}{6}$			Find the probability that Samantha's difference is a prime number																																																	
3.4 Find: $6 \div \frac{1}{3}$																																																				
Algebra:		8 How many lines of symmetry does a parallelogram have																																																		
4.1 Solve: $4 + 9x = 49$		9.																																																		
4.1 Solve $\frac{x}{11} = 3$																																																				
5.2 Find the first three terms of the sequence given by $7n+1$		Find the size of angle B																																																		
5.3 Which is the first term above 50 in the sequence $5n+7$																																																				

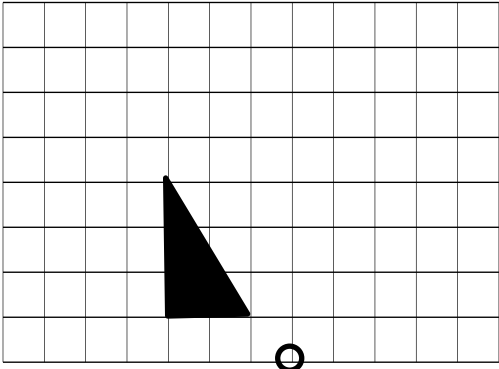
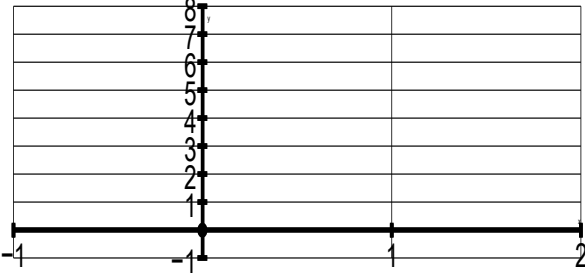
Grade D Practice sheet 6 – do your calculations in your exercise book

Number		6 Complete the table for: $y = 0.5x + 2$	Enlarge by a scale factor of 2, using O as the centre of enlargement																
1.1 Write down $0.7^2$																			
1.2 Find $2^3 + 3^3$		<table border="1"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>		$x$	0	1	2	$y$											
$x$	0	1		2															
$y$																			
Calculating		Plot the graph																	
2 Share £45 in the ratio 3:7																			
3.1 Find: $\frac{4}{3}$ of £27		8 What type of angle does an arrowhead have?	Jack tosses three coins. List all possible outcomes in the table below																
3.2 Evaluate: $\frac{7}{3} - \frac{5}{7}$		9.	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																
3.3 Evaluate: $\frac{1}{4} + \frac{1}{3} + \frac{1}{12}$			P(Jack gets at least one Head)=																
3.4 Find: $8 \div \frac{2}{3}$		Write down an expression for B in terms of A	A spinner has three colours. Find the value of p																
Algebra:		What is the value of $2A + 2B$	<table border="1"> <tr> <td>Colour</td> <td>red</td> <td>green</td> <td>Blue</td> </tr> <tr> <td>Probability</td> <td>p</td> <td>p</td> <td>0.6</td> </tr> </table>	Colour	red	green	Blue	Probability	p	p	0.6								
Colour	red	green	Blue																
Probability	p	p	0.6																
4.1 Solve: $10x - 3 = 2$																			
4.1 Solve $\frac{x}{10} = 0.5$																			
5.2 Find the first three terms of the sequence given by $3n-5$																			
5.3 Is the number 46 in the sequence given by $50n - 4$																			

Grade D Core Skills Practice Sheet 7

<p><b>Number</b></p>		<p>6 Complete the table for:</p>	<p>Enlarge by a scale factor of 2, using O as the centre of enlargement</p>								
<p>Find the lowest integer <math>x</math> such that</p> $\sqrt{75} < x < \sqrt{85}$		$y = 6 - x$ <table border="1" data-bbox="795 368 1182 443"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>	$x$	0	1	2	$y$				
$x$	0	1	2								
$y$											
<p>1.2 Write down <math>\sqrt{1.44}</math></p>		<p>Plot the graph</p>									
<p>Calculating</p>											
<p>2 Share £40 into the ratio 1:2:5</p>											
<p>3.1 Find:</p> $\frac{7}{20} \text{ of } \text{£}30$											
<p>3.2 Evaluate:</p> $\frac{2}{9} + \frac{1}{4}$											
<p>3.3 Evaluate:</p> $\frac{1}{4} - \frac{1}{3}$											
<p>3.4 Find:</p> $12 \times \frac{7}{6}$											
<p><b>Algebra:</b></p>		<p>8 One angle in a parallelogram is <math>42^\circ</math>. What will the other different angle equal?</p>	<p>In a game of chance, the probability of winning is 0.3 and the probability of losing is <math>\frac{5}{20}</math>. What is the probability of the game being a tie?</p>								
<p>4.1 Solve: <math>11 - 2x = 10</math></p>		<p>9. Find <math>x</math></p>									
<p>4.1 Solve</p> $\frac{100}{2x} = 2$											
<p>5.2 Find the first three terms of the sequence given by the formula <math>30 - 7n</math></p>			<p>Sally spends £50 on ingredients to make 10 cakes. How much must each cake be sold for to make a 10% profit?</p>								

Grade D Core Skills Practice Sheet 8

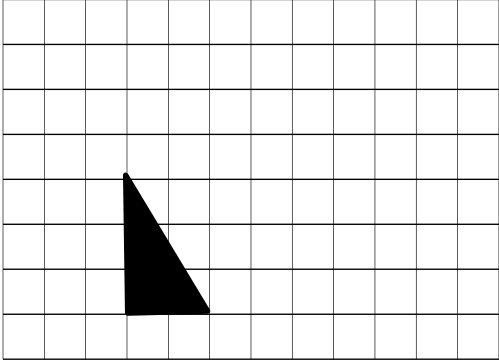
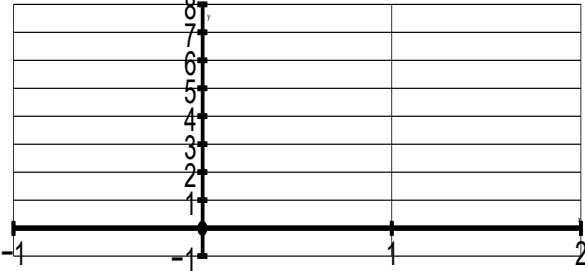
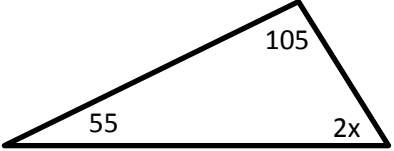
Number											
1. What integer is $\sqrt[3]{28}$ closest to?		6 Complete the table for: $y = 5 - 3x$	Enlarge by a scale factor of 2, using O as the centre of enlargement								
Calculating		<table border="1" data-bbox="792 437 1180 512"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>	$x$	0	1	2	$y$				
$x$	0	1	2								
$y$											
2 Share £42 in the ratio 2:3		Plot the graph									
3.1 Find: $\frac{3}{8}$ of \$84											
3.2 Evaluate: $\frac{2}{5} + \frac{3}{7}$											
3.3 Evaluate: $\frac{2}{5} - \left(\frac{1}{4} + \frac{1}{2}\right)$											
3.4 Find: $27 \times \frac{8}{54}$		8. One angle in an isosceles triangle is $40^\circ$ . What could the other two angles be?	In a game, the probability of winning and losing is in the ratio 7:13. What is the percentage chance of winning?								
<b>Algebra:</b>											
4.1 Solve: $10 + 2x = 0$											
4.1 Solve $\frac{8x}{3} = 16$											
5.2 Find the 5 <sup>th</sup> term of the sequence given by the formula $\frac{20}{n}$			Suggest two numbers to make the following correct: $-11 - \square = -3$								



Grade D Practice sheet 9 – do your calculations in your exercise book

Number		6 Complete the table for: $y = 2.5x + 1$	Enlarge by a scale factor of 2, using O as the centre of enlargement																																																	
1.1 Write down $(-9)^2$																																																				
1.2 Find $4^3$		<table border="1"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>		$x$	0	1	2	$y$																																												
$x$	0	1		2																																																
$y$																																																				
Calculating		Plot the graph																																																		
2 Share £32 in the ratio 3: 5																																																				
3.1 Find: $\frac{2}{5}$ of £70																																																				
3.2 Evaluate: $\frac{3}{5} + \frac{1}{4}$			Samantha rolls two dice and finds the difference of the two numbers together. Complete the table below to show all possible outcomes																																																	
3.3 Evaluate: $\frac{5}{7} - \frac{1}{3}$			<table border="1"> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		1	2	3	4	5	6	1							2							3							4							5							6						
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3.4 Find: $13 \div \frac{1}{4}$		8 What is the order of rotational symmetry of a parallelogram																																																		
Algebra:		9.																																																		
4.1 Solve: $8x - 3 = 37$																																																				
4.1 Solve $\frac{x}{3} - 1 = 7$																																																				
5.2 Find the first three terms of the sequence given by $3n+2$																																																				
5.3 Is 35 in the sequence $3n+6$																																																				
		Which angle corresponds to D																																																		
		What is the value of A+B																																																		
			The probability of rain per day is 0.3. How many days would you expect it NOT to rain in the next 20 days																																																	

Grade D Core Skills Practice Sheet 10

<p><b>Number</b></p>		<p>6 Complete the table for:</p>	<p>What is the area of this triangle if it is enlarged by a scale factor of 2</p>								
<p>1.1 Estimate <math>\sqrt{101}</math></p>		<p><math>y = x + 2</math></p>									
<p>1.2 Write down <math>\sqrt[3]{8}</math></p>		<table border="1" data-bbox="795 368 1182 443"> <tr> <td><math>x</math></td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td><math>y</math></td> <td></td> <td></td> <td></td> </tr> </table>	$x$	0	1	2	$y$				
$x$	0	1	2								
$y$											
<p>Calculating</p>		<p>Plot the graph</p>									
<p>2 Share £25 in the ratio 3:7</p>											
<p>3.1 Decrease \$400 by <math>\frac{1}{10}</math></p>											
<p>3.2 Evaluate:</p>											
<p><math>\frac{5}{7} - \frac{1}{2}</math></p>											
<p>3.3 Evaluate:</p>											
<p><math>\frac{1}{3} + \frac{2}{5}</math></p>											
<p>3.4 Find:</p>			<p>A spinner has five equal sections on. The sections are coloured red, green or yellow. The probability of getting red is three times that of green. Sketch the spinner below</p>								
<p><math>10 \times \frac{7}{2}</math></p>											
<p><b>Algebra:</b></p>		<p>8 Write an expression for the total price of n pens costing 32pence each and x pencils costing 17 pence each:</p>									
<p>4.1 Solve: <math>5(3x + 2) = 55</math></p>		<p>9. Find <math>x</math></p>									
<p>4.1 Solve</p>											
<p><math>\frac{x}{2} - 7 = 2</math></p>											
<p>5.2 Find the 10<sup>th</sup> term in the sequence given by the formula <math>3n + 7</math></p>			<p>Find the MEAN and MEDIAN of: 5, 7, 3, 5</p>								