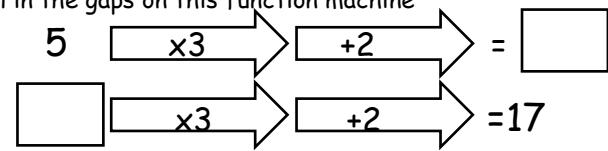
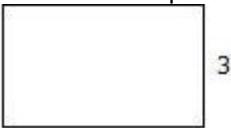
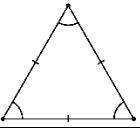
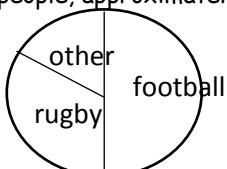
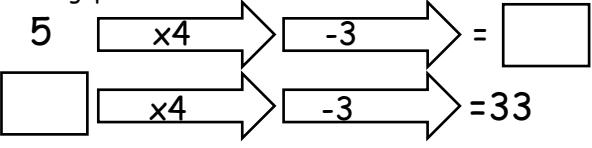
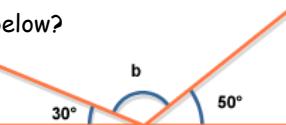
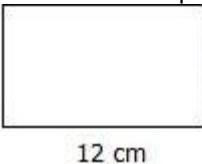
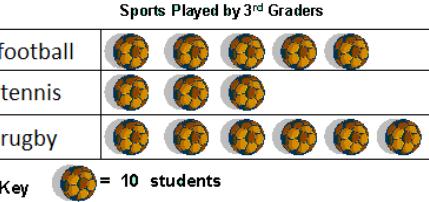


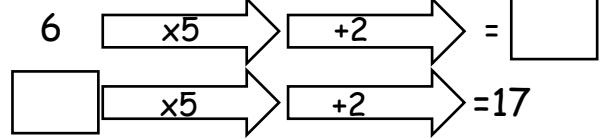
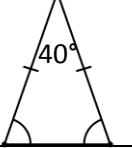
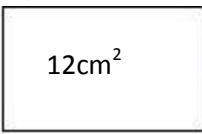
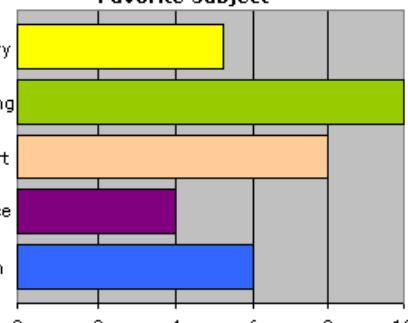
Mixed Topic Homework Sheet 1

<p>1. Calculate $4 \times 7 + 2 =$</p>	<p>2. Fill in the gaps on this function machine</p>  $\begin{array}{ccccccc} 5 & \xrightarrow{x3} & \boxed{} & \xrightarrow{+2} & \boxed{} & = & \boxed{} \\ & & \xrightarrow{x3} & & \boxed{} & \xrightarrow{+2} & = 17 \end{array}$
<p>3. Write the following ratio in its simplest form, 4:6</p>	<p>4. What is the perimeter of the following shape?</p> 
<p>5. If I have 20 shirts and 4 are blue, what is the probability of me choosing a blue shirt?</p>	<p>6. What is the mode of the following set of numbers? 2, 3, 6, 7, 7, 9</p>
<p>7. List 5 different prime numbers.</p>	<p>8. Write the next three terms of the following sequence: 2, 5, 8, 11, _____, _____, _____</p>
<p>9. If I need 50 chocolate chips to make 10 cookies, how many do I need to make 20 cookies?</p>	<p>10. The triangle below is an equilateral triangle, what is the size of each angle?</p> 
<p>11. Find the median for the following set of numbers: 12, 15, 15, 16, 19, 21, 25</p>	<p>12. If the probability of choosing a strawberry from a bag of strawberries and apples is 0.25, what is the probability of choosing an apple?</p>
<p>13. Write the following decimals from smallest to largest: 0.13, 0.039, 0.31, 0.45, 0.045</p>	<p>14. Simplify $4x + 2y + 3x + 5y$</p>
<p>15. What is the area of the following shape 9 cm </p>	<p>16. Write down all the possibilities when rolling a fair six sided die.</p>
<p>17. What is 50% of 120?</p>	<p>18. Write an expression for the total cost of 4 pencils and 2 rubbers.</p>
<p>19. How many metres are in 3.5km?</p>	<p>20. If the pie chart below represents favourite sports of 40 people, approximately how many chose football?</p> 
<p>Total: _____ /20</p>	<p>Personal Target:</p>

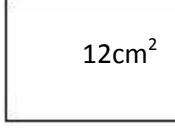
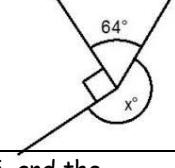
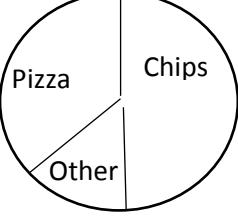
Mixed Topic Homework Sheet 2

1. Calculate $2 + 6 \div 3 =$	2. Fill in the gaps on this function machine 																
3. If the ratio of gold coins to silver coins is 1:4, how many silver coins would I have if I had 3 gold coins?	4. What is the area of the following shape? 																
5. If I have 15 flowers and 5 are red, what is the probability of me not choosing a red flower?	6. What is the median of the following set of numbers? 2, 3, 4, 6, 7, 7, 9																
7. Circle the prime numbers from the list below: 2, 17, 27, 63, 77, 97	8. What is the term to term rule of the following sequence? 23, 18, 13, 8, 3, -2																
9. If I need 40g of flour to make 12 breadsticks, how much flour would I need to make 18 breadsticks?	10. What is the size of the missing angle in the diagram below? 																
11. Find the range for the following set of numbers: 12, 15, 15, 16, 19, 21, 25	12. Complete the two way table below. What is the probability a person selected at random liked both star wars and titanic? <table border="1" data-bbox="806 1051 1192 1260"> <thead> <tr> <th>ANSWER</th> <th>Like "Titanic"</th> <th>Dislike "Titanic"</th> <th>Totals</th> </tr> </thead> <tbody> <tr> <td>Like "Star Wars"</td> <td>70</td> <td></td> <td></td> </tr> <tr> <td>Dislike "Star Wars"</td> <td>50</td> <td>50</td> <td></td> </tr> <tr> <td>Totals</td> <td></td> <td></td> <td>200</td> </tr> </tbody> </table>	ANSWER	Like "Titanic"	Dislike "Titanic"	Totals	Like "Star Wars"	70			Dislike "Star Wars"	50	50		Totals			200
ANSWER	Like "Titanic"	Dislike "Titanic"	Totals														
Like "Star Wars"	70																
Dislike "Star Wars"	50	50															
Totals			200														
13. Write the following fractions in order from smallest to largest: $\frac{1}{5}$ $\frac{1}{2}$ $\frac{3}{10}$ $\frac{4}{5}$	14. Simplify $5e + 2f - 3e - 8f$																
15. What is the perimeter of the following shape 	16. Write down all the possibilities when rolling a fair six sided die, and flipping a fair coin.																
17. What is 30% of 120?	18. Write an expression for the total cost of 10 bracelets and 2 watches.																
19. How many millimetres are in 47cm	20. If the pictogram below represents peoples favourite sports, how many chose rugby?  <table border="1" data-bbox="806 1837 1235 2039"> <thead> <tr> <th colspan="2">Sports Played by 3rd Graders</th> </tr> </thead> <tbody> <tr> <td>football</td> <td>5</td> </tr> <tr> <td>tennis</td> <td>4</td> </tr> <tr> <td>rugby</td> <td>6</td> </tr> <tr> <td>Key</td> <td>10 students</td> </tr> </tbody> </table>	Sports Played by 3 rd Graders		football	5	tennis	4	rugby	6	Key	10 students						
Sports Played by 3 rd Graders																	
football	5																
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rugby	6																
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Total: /20	Personal Target:																

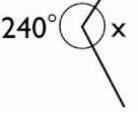
Mixed Topic Homework Sheet 3

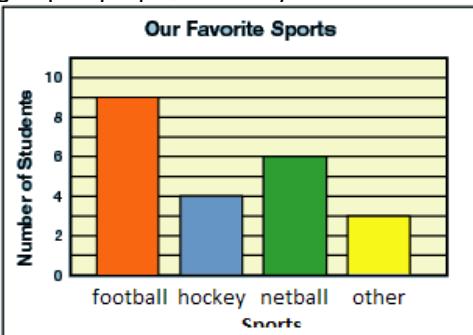
1. Calculate $15 \div (3 + 2) =$	2. Fill in the gaps on this function machine 												
3. Write the following ratio in its simplest form, 15:60	4. If the perimeter of a shape is 40cm, what could the width and length be?												
5. If I have 28 pencils and 7 are blue, what is the probability of me choosing a blue pencil?	6. What is the median of the following set of numbers? 17, 19, 26, 29, 32, 33, 40												
7. List all the factors of the number 12	8. Write the next three terms of the following sequence: 12, 18, 24, _____, _____, _____												
9. If I need 6 bags of cement to make 20kg of concrete, how many bags would I need to make 50kg of concrete.	10. Calculate the size of the missing angles, and state the reasons for your answer. 												
11. Find the mean for the following set of numbers: 12, 15, 15, 16, 19, 21, 25	12. If the probability of picking a green marble from a bag of green and red marbles is 0.3, what is the probability of choosing a red marble?												
13. Write the following decimals from smallest to largest: 0.23 0.32 0.03 0.9 0.07	14. Simplify $2a \times 3 + 4b \times 2$												
15. What is the width of the shape below? 	16. If the probability of a pin landing point up is 0.2, how many times would I expect it to land point up if I were to drop the pin 200 times?												
17. What is 45% of 280	18. Solve the following equation: $3g + 2 = 14$												
19. How many litres is 4280 ml?	20. Based on the bar chart below, how many people said art was their favourite subject?  <table border="1"> <caption>Data from Favorite Subject Bar Chart</caption> <thead> <tr> <th>Subject</th> <th>Number of People</th> </tr> </thead> <tbody> <tr> <td>History</td> <td>5</td> </tr> <tr> <td>Reading</td> <td>10</td> </tr> <tr> <td>Art</td> <td>8</td> </tr> <tr> <td>Science</td> <td>4</td> </tr> <tr> <td>Math</td> <td>6</td> </tr> </tbody> </table>	Subject	Number of People	History	5	Reading	10	Art	8	Science	4	Math	6
Subject	Number of People												
History	5												
Reading	10												
Art	8												
Science	4												
Math	6												
Total: _____ /20	Personal Target:												

Mixed Topic Homework Sheet 4

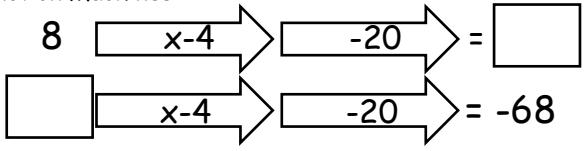
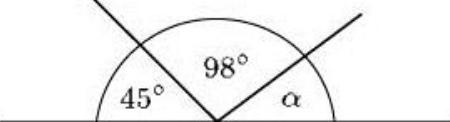
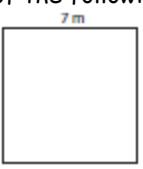
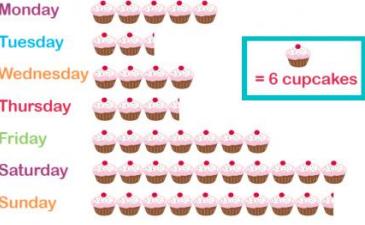
<p>1. Calculate $(4 + 2) \times (3 - 5)$</p>	<p>2. Fill in the gaps on this function machine</p> <p>7 $\xrightarrow{x-3}$ $\xrightarrow{+2}$ = $\boxed{\quad}$</p> <p>$\boxed{\quad}$ $\xrightarrow{x-3}$ $\xrightarrow{+2}$ = -22</p>
<p>3. Write the following ratios in their simplest forms, 5:25 3:33 12:66</p>	<p>4. What is the perimeter of the following shape?</p> 
<p>5. If I have 10 apples, 3 pears and 2 oranges, what is the probability of choosing a pear?</p>	<p>6. What is the mode of the following set of numbers? 4, 5, 8, 5, 2, 6, 4, 5</p>
<p>7. List 3 multiples of 8.</p>	<p>8. What is the nth term rule of the following sequence? 2, 5, 8, 11, 14</p>
<p>9. If a company need 40 potatoes to make 100 packets of crisps, how many potatoes would they need to make 250 packets of crisps?</p>	<p>10. What is the size of the missing angle labelled x°?</p> 
<p>11. Find the median for the following set of numbers: 25, 22, 13, 36, 17</p>	<p>12. If the probability winning a game is 0.25, and the probability of drawing is 0.3, what is the probability of losing?</p>
<p>13. Write the following in order from smallest to largest: 0.13, $1/10$, $2/5$, 0.25, 50%</p>	<p>14. If $a = 3$ and $b = 6$, what would $4a + 3b$ be equivalent to?</p>
<p>15. What is the area of a square with a side length of 9cm.</p>	<p>16. If the probability of the next car I see being red is 0.25, how many of the next 300 cars I see would I expect to be red?</p>
<p>17. Increase 80 by 20%</p>	<p>18. Solve the following equation: $4a - 12 = 88$</p>
<p>19. How many centimetres is 52.5 metres?</p>	<p>20. If the pie chart below represents favourite dinners of 300, how many people chose pizza?</p> 
<p>Total: /20</p>	<p>Personal Target:</p>

Mixed Topic Homework Sheet 5

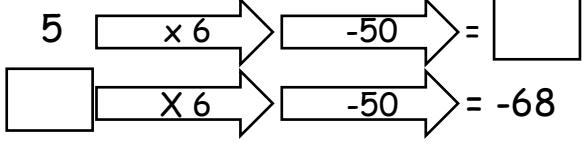
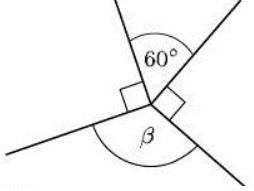
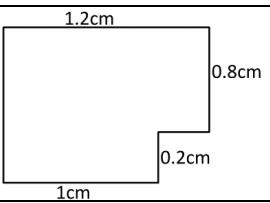
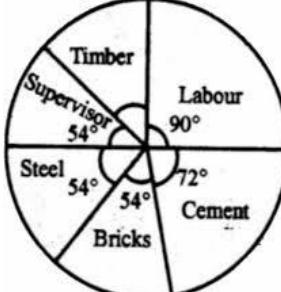
1. Calculate $12 - 3 + (4-2) =$	2. Fill in the gaps on this function machine $\begin{array}{ccccccc} 5 & \xrightarrow{x-4} & \boxed{} & \xrightarrow{-20} & \boxed{} & = & \boxed{} \\ \boxed{} & \xrightarrow{x-4} & \boxed{} & \xrightarrow{-20} & \boxed{} & = & -68 \end{array}$
3. If the ratio of red socks to blue socks is 1:6, how many red socks would I have if I had 24 blue socks?	4. What is the perimeter of a football pitch of length 96m and width of 60m?
5. If I have 45 counters, 20 are red, 5 are green and the rest are blue, what is the probability of not choosing a red counter?	6. What is the mode of the following set of numbers? 64, 58, 64, 72, 55, 64, 55
7. Express 18 as a product of it's prime factors.	8. Write the nth term rule of the following sequence. -2, 5, 12, 19, 26
9. If I need 45g of sugar to make 5 donuts, how much sugar do I need to make 20 donuts?	10. Calculate the size of the angle labelled x, and state the reason for your answer. 
11. Find the median for the following set of numbers: 2, 8, 9, 2, 4, 5	12. If the probability of choosing a strawberry from a bag of strawberries, pears and apples is 0.37, and the probability of choosing a pear is 0.12, what is the probability of choosing an apple?
13. Write the following from smallest to largest: $\frac{3}{4}$ 0.6 $\frac{2}{3}$ 0.7 $\frac{4}{5}$	14. If $x = 6$ and $y = -3$, what is the value of $4x + 2y + 3x + 5y$
15. What is the width of a square with an area of 49cm^2	16. What is the probability of choosing a red card from a standard pack of cards?
17. Decrease 140 by 15%	18. Solve the following equation: $4(x + 3) = 64$
19. How many metres are in 7.86km?	20. If the bar chart below represents favourite sports of a group of people, how many chose football?
Total: /20	Personal Target:



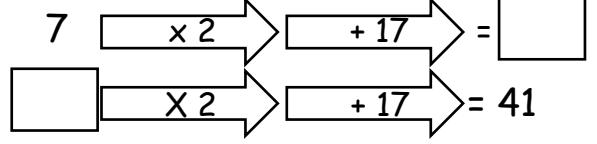
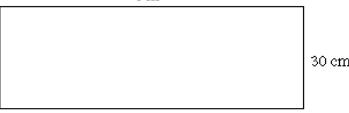
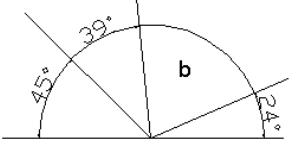
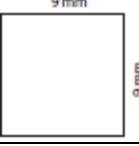
Mixed Homework Sheet 6

<p>1. 3×4^2</p>	<p>2. Function Machines</p> 
<p>3. For every 5 boys on a softball team there is 1 girl. What is the ratio of boys to girls?</p>	<p>4. The perimeter of a rectangle is 232 inches. The width is 36 inches. What is the length of the rectangle?</p>
<p>5. What is the probability of choosing a green marble from a jar containing 5 red, 6 green and 4 blue marbles?</p>	<p>6. Mr Smith kept a record of the number of absences for each student in his class for one term. Here are his results. 0 0 0 8 4 5 5 3 2 1 Write down the mode.</p>
<p>7. Express 210 as a product of its prime factors.</p>	<p>8. Write the next three terms of the following sequence 12, 8, 4, __, __, __</p>
<p>9. If I need 40g of flour to make 20 breadsticks, how much flour would I need to make 140 breadsticks?</p>	<p>10. What is the size of angle α</p> 
<p>11. The highest mark in the Science test was 92. Three students scored 46 which was 6 marks higher than the lowest score. What was the range of the scores?</p>	<p>12. If the probability picking a green marble from a bag of green and red marbles is 0.3. If I choose a marble 100 times and replace it each time, how many times would I expect to pick a green marble?</p>
<p>13. Order the following from smallest to largest. 0.31, 0.103, 0.3, 0.1, 0.013</p>	<p>14. Find the value of the following expression if $a = 2$, $b = 5$ and $c = 9$. $a + b + c$</p>
<p>15. What is the difference between the perimeter and area of the following square?</p> 	<p>16. You have a pair of dice. Find the probability of rolling a prime number on the first die and an even number on the second.</p>
<p>17. Katie earns £40 per week for her part-time job. She is to be given a 5% pay rise. How much will she earn per week after the pay rise?</p>	<p>18. Solve the following equation: $-32 = x + 3$</p>
<p>19. What is 8.5 L in ml?</p>	<p>20. Based on the pictogram below, how many cupcakes were eaten on Sunday?</p> 
<p>Total: /20</p>	<p>Personal Target:</p>

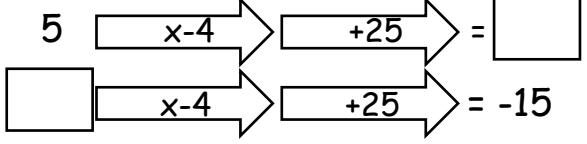
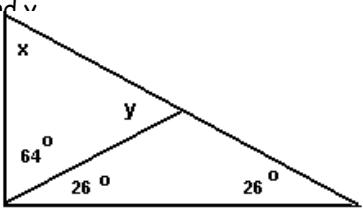
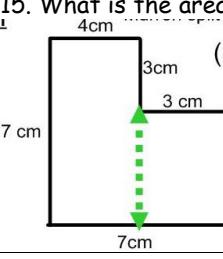
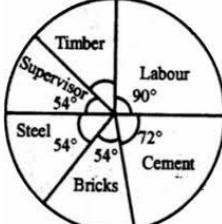
Mixed Homework Sheet 7

1. $3 + 5 \times 7 - 8$	2. Function Machines  $\begin{array}{ccc} 5 & \xrightarrow{\times 6} & \boxed{\quad} \xrightarrow{-50} \boxed{\quad} = \boxed{\quad} \\ \boxed{\quad} \xrightarrow{X 6} \boxed{\quad} \xrightarrow{-50} \boxed{\quad} = -68 \end{array}$
3. The ratio of male to female birds in a bird cage was 5:2. For every 45 males there are <u> </u> females.	4. If a square has sides of 1cm each, what is the area of the square in millimetres?
5. What is the probability of getting a 7 after rolling a single die numbered 1 to 6?	6. Mr Smith kept a record of the number of absences for each student in his class for one term. Here are his results. 0 0 0 8 4 5 5 3 2 1 Work out the mean.
7. Express 96 as a product of its prime factors.	8. What is the nth term rule of the following sequence 12, 8, 4, 0, -4, -8
9. If I need 75ml of milk to make 15 pancakes, how much milk do I need to make 28 pancakes?	10. Calculate the size of angle β 
11. Five people took part in a sponsored swim. The number of lengths they completed were 16, 11, 8, 8, and 14. What is the median number of lengths completed?	12. A fair die is rolled 180 times, how many times would I expect it to either land on a 3 or a 5.
13. Order the following from smallest to largest: $\frac{2}{3}, \frac{3}{5}, \frac{13}{15}, \frac{2}{5}$	14. Find the value of the following expression if $a = 2$, $b = 5$ and $c = 9$. $c - b + a$
15. What is the perimeter of the shape? 	16. You have a deck of cards. Find the probability of drawing a red card on the first draw, replacing it and drawing a red card on the second draw.
17. Increase £270 by 25%	18. Solve the following equation: $4x + 8 = 16$
19. What is 10,500g in kg?	20. The pie chart shows the what costs are involved building a house. What fraction of the total is labour? 
Total: /20	Personal Target:

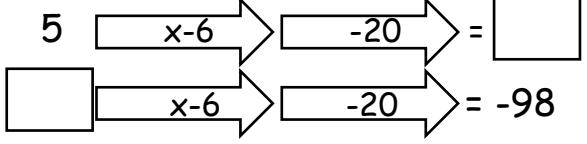
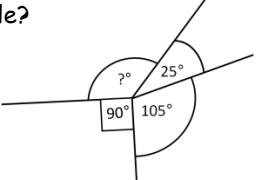
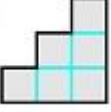
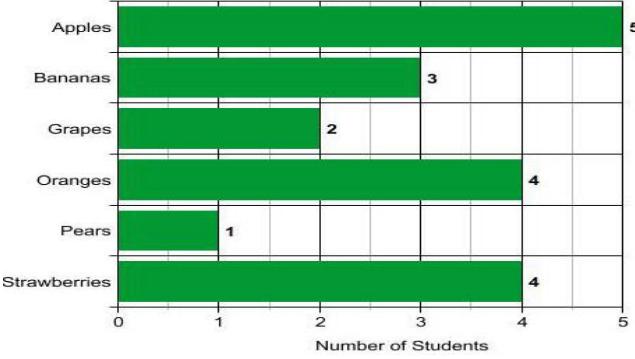
Mixed Homework Sheet 8

<p>1. $12 \div 4 + 6 \times 2^2$</p>	<p>2. Function Machines</p> 														
<p>3. At the malt shop the ratio of hotdogs sold to hamburgers sold was 7:5. For every _____ hamburgers sold there were 65 hotdogs sold.</p>	<p>4. What is the area of the rectangle?</p> 														
<p>5. What is the probability of choosing the letter i from the word probability?</p>	<p>6. Peter rolled a 6-sided dice ten times. Here are his scores. 3 2 4 6 3 3 4 2 5 4 Work out the median of his scores.</p>														
<p>7. What is the highest common factor of 31 and 124?</p>	<p>8. What are the missing terms in this sequence? 1, ___, 7, 9, ___, 13, ___</p>														
<p>9. If I need 4kg of cement to make 32kg concrete, how much cement do I need to make 96kg of concrete?</p>	<p>10. Calculate the size of angle b.</p> 														
<p>11. What is the difference between the mean and the median of the following set of numbers; 10, 32, 10, 11, 7</p>	<p>12. Cards are randomly selected from a pack of cards and each then replaced before the next choice. Out of 65 choices how many times would I expect to pick a king?</p>														
<p>13. Order the following from smallest to largest: $\frac{3}{7}, \frac{1}{2}, 0.49, 0.2$</p>	<p>14. Find the value of the following expression if $a = 2$, $b = 5$ and $c = 9$. $4a + bc$</p>														
<p>15. What is the difference between the area and perimeter of the following square?</p> 	<p>16. You have a deck of cards. Find the probability of drawing a 4 through 7 on the first draw, replacing it and drawing a Spade card on the second draw</p>														
<p>17. The prices of all the televisions in a shop are to be increased by 8%. Calculate the new price of a television that originally cost £150</p>	<p>18. Solve the following equation: $14 = -2x$</p>														
<p>19. What is 48cm in mm?</p>	<p>20. If 8 red boxes were sold on Tuesday, add a key to the pictogram to make it correct.</p> <table border="1"> <thead> <tr> <th>Days</th> <th>Number of Red-Boxes Sold</th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td></td> </tr> <tr> <td>Tuesday</td> <td></td> </tr> <tr> <td>Wednesday</td> <td></td> </tr> <tr> <td>Thursday</td> <td></td> </tr> <tr> <td>Friday</td> <td></td> </tr> <tr> <td>Saturday</td> <td></td> </tr> </tbody> </table>	Days	Number of Red-Boxes Sold	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
Days	Number of Red-Boxes Sold														
Monday															
Tuesday															
Wednesday															
Thursday															
Friday															
Saturday															
<p>Total: /20</p>	<p>Personal Target:</p>														

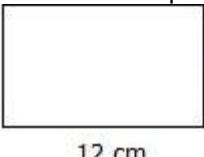
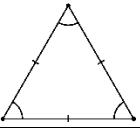
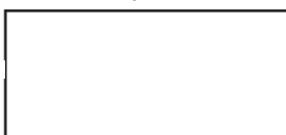
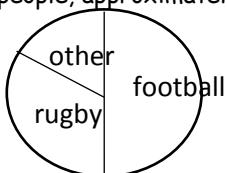
Mixed Homework Sheet 9

<p>1. $4 \times (3 + 6)$</p>	<p>2. Function Machines</p> 
<p>3. For every 8 Wii games Sarah owned she had 4 PS3 games. What is her ratio of Wii games to PS3 games?</p>	<p>4. A rectangle has a perimeter of 24 cm and an area of 32 cm^2. What are the lengths of the shorter side and longer side?</p>
<p>5. What is the probability of choosing a queen, a king or an ace from a standard deck of playing cards?</p>	<p>6. What is the range of the following set of data? 12 1 10 1 9 3 4 9 7 9</p>
<p>7. What is the lowest common multiple of 15 and 12?</p>	<p>8. What is the nth term rule of the following sequence? 1, 3, 5, 7, 9, 11</p>
<p>9. If the exchange rate is £1 = €1.38, and I had €490 to change back to pounds, how many pounds would I get?</p>	<p>10. Find the size of angles x and y</p> 
<p>11. The weights of six dogs in kilograms are; 12.1, 14.3, 10.8, 14.0, 10.7 and 15.5. Calculate the mean weight to one decimal place.</p>	<p>12. Cards are randomly selected from a pack of cards and each then replaced before the next choice. Out of 65 choices how many times would I expect to pick a picture card?</p>
<p>13. Order the following from smallest to largest: $\frac{4}{5}, \frac{11}{20}, \frac{9}{10}, \frac{3}{4}$</p>	<p>14. Find the value of the following expression if $a = 2$, $b = 5$ and $c = 9$. $4(a + b)$</p>
<p>15. What is the area of the shape below?</p> 	<p>16. You have a deck of cards. Find the probability of drawing a face card that is red.</p>
<p>17. Decrease €400 by 18%</p>	<p>18. Solve the following equation: $-3 + 2x = 11$</p>
<p>19. What is 48cm in m?</p>	<p>20. The pie chart below shows costs when building a house. What angle is required for timber, and if the total cost of the build was £25000, how much did the timber cost?</p> 
<p>Total: /20</p>	<p>Personal Target:</p>

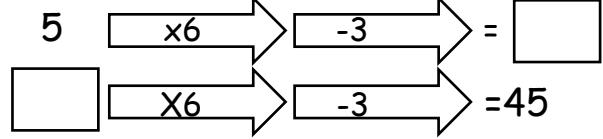
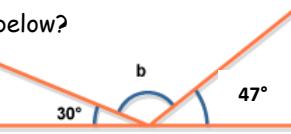
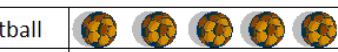
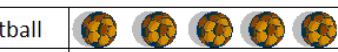
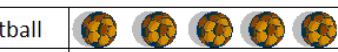
Mixed Homework Sheet 10

<p>1. $8 \times 6 \div (8 - 6) \times 2$</p>	<p>2. Function Machines</p> 														
<p>3. The ratio of cars to trucks in a parking lot was 4:7. For every _____ cars there were _____ trucks.</p>	<p>4. A rectangle has a perimeter of 24 cm and an area of 35 cm^2. What are the lengths of the shorter side and longer side?</p>														
<p>5. What is the probability of choosing a jack or a queen from a standard deck of 52 playing cards?</p>	<p>6. What is the median of the following set of data? 12 1 10 1 9 3 4 9 7 9</p>														
<p>7. Express 225 as a product of its prime factors.</p>	<p>8. What are the missing terms in the following sequence? ____, 4, 7, ___, ___, 16</p>														
<p>9. Is the exchange rate is £1 = \$1.82, how many dollars would I get for £560</p>	<p>10. What is the size of the missing angle?</p> 														
<p>11. The weights of six dogs in kilograms are; 12.1, 14.3, 10.8, 14.0, 10.7 and 15.5. Calculate the median weight of the dogs.</p>	<p>12. The probability of a biased coin landing on heads is 0.55. I flip the coin 200 times, how many times would the coin land on heads?</p>														
<p>13. Order the following from smallest to largest. $\frac{7}{9}, \frac{2}{3}, 0.66, 78\%$</p>	<p>14. Find the value of the following expression if $a = 2$, $b = 5$ and $c = 9$. $5(a + bc)$</p>														
<p>15. What is the area of the following shape if each square is one centimetre wide?</p> 	<p>16. You have a deck of cards. Find the probability of drawing a 7.</p>														
<p>17. In a sale the cost of a computer is reduced by 30%. The normal price of the computer was £900. Calculate the sale price of the computer</p>	<p>18. Solve the following equation $4x + 6 = -10$</p>														
<p>19. What is 4.2m in mm?</p>	<p>20. The bar chart shows students favourite fruit. What is the difference between votes for apples and votes for pears?</p> <p>Students Vote for Favorite Fruit</p>  <table border="1"> <thead> <tr> <th>Fruit</th> <th>Number of Students</th> </tr> </thead> <tbody> <tr> <td>Apples</td> <td>5</td> </tr> <tr> <td>Bananas</td> <td>3</td> </tr> <tr> <td>Grapes</td> <td>2</td> </tr> <tr> <td>Oranges</td> <td>4</td> </tr> <tr> <td>Pears</td> <td>1</td> </tr> <tr> <td>Strawberries</td> <td>4</td> </tr> </tbody> </table>	Fruit	Number of Students	Apples	5	Bananas	3	Grapes	2	Oranges	4	Pears	1	Strawberries	4
Fruit	Number of Students														
Apples	5														
Bananas	3														
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Pears	1														
Strawberries	4														
<p>Total: _____ /20</p>	<p>Personal Target:</p>														

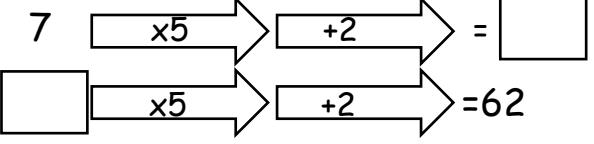
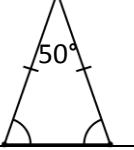
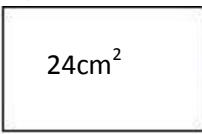
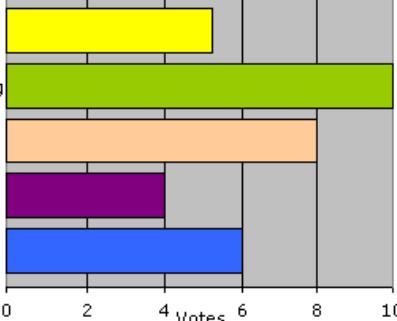
Mixed Topic Homework Sheet 11

<p>1. Calculate $5 \times 7 - 9 =$</p>	<p>2. Fill in the gaps on this function machine</p> <p style="text-align: center;"> $5 \rightarrow \boxed{\quad} \xrightarrow{\times 4} \boxed{\quad} \xrightarrow{+1} \boxed{\quad} = \boxed{\quad}$ $\boxed{\quad} \xrightarrow{\times 4} \boxed{\quad} \xrightarrow{+1} \boxed{\quad} = 17$ </p>
<p>3. Write the following ratio in its simplest form, 8:24</p>	<p>4. What is the perimeter of the following shape?</p> 
<p>5. If I have 22 shirts and 4 are blue, what is the probability of me choosing a blue shirt?</p>	<p>6. What is the mode of the following set of numbers? 2, 3, 6, 7, 7, 9, 9, 11, 13</p>
<p>7. List 5 different prime numbers between 20 and 40</p>	<p>8. Write the next three terms of the following sequence: 5, 9, 13, 17, _____, _____, _____</p>
<p>9. If I need 70 chocolate chips to make 10 cookies, how many do I need to make 20 cookies?</p>	<p>10. The triangle below is an equilateral triangle, what is the size of each angle and why?</p> 
<p>11. Find the median for the following set of numbers: 12, 15, 15, 16, 19, 21, 25, 27, 32</p>	<p>12. If the probability of choosing a strawberry from a bag of strawberries and apples is 0.35, what is the probability of choosing an apple?</p>
<p>13. Write the following decimals from smallest to largest: 0.013, 0.39, 0.31, 0.45, 0.045, 4.5</p>	<p>14. Simplify $7x + 2y + 3x + 9y$</p>
<p>15. What is the area of the following shape 12cm </p>	<p>16. Write down all the possibilities when rolling a fair six sided die.</p>
<p>17. What is 50% of 170?</p>	<p>18. Write an expression for the total cost of 5 pencils and 6 rubbers.</p>
<p>19. How many metres are in 9.5km?</p>	<p>20. If the pie chart below represents favourite sports of 90 people, approximately how many chose rugby?</p> 
<p>Total: _____ /20</p>	<p>Personal Target:</p>

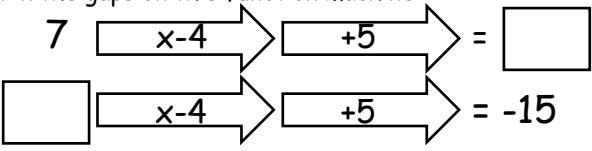
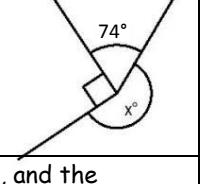
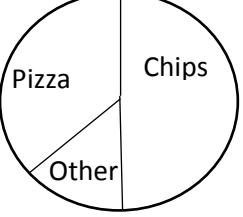
Mixed Topic Homework Sheet 12

1. Calculate $4 + 9 \div 3 =$	2. Fill in the gaps on this function machine 																
3. If the ratio of gold coins to silver coins is 2:5, how many silver coins would I have if I had 8 gold coins?	4. What is the area of the following shape? 																
5. If I have 40 flowers and 5 are red, what is the probability of me not choosing a red flower?	6. What is the median of the following set of numbers? 2, 3, 4, 6, 7, 7, 9																
7. Circle the prime numbers from the list below: 2, 17, 27, 63, 77, 97, 31, 43, 21, 39	8. What is the term to term rule of the following sequence? 52, 48, 44, 40, 36																
9. If I need 60g of flour to make 12 breadsticks, how much flour would I need to make 18 breadsticks?	10. What is the size of the missing angle in the diagram below? 																
11. Find the range for the following set of numbers: 12, 15, 15, 16, 19, 21, 25, 31, 37	12. Complete the two way table below. What is the probability a person selected at random liked both star wars and titanic? <table border="1" data-bbox="806 1051 1192 1260"> <thead> <tr> <th>ANSWER</th> <th>Like "Titanic"</th> <th>Dislike "Titanic"</th> <th>Totals</th> </tr> </thead> <tbody> <tr> <td>Like "Star Wars"</td> <td>70</td> <td></td> <td></td> </tr> <tr> <td>Dislike "Star Wars"</td> <td>50</td> <td>50</td> <td></td> </tr> <tr> <td>Totals</td> <td></td> <td></td> <td>250</td> </tr> </tbody> </table>	ANSWER	Like "Titanic"	Dislike "Titanic"	Totals	Like "Star Wars"	70			Dislike "Star Wars"	50	50		Totals			250
ANSWER	Like "Titanic"	Dislike "Titanic"	Totals														
Like "Star Wars"	70																
Dislike "Star Wars"	50	50															
Totals			250														
13. Write the following fractions in order from smallest to largest: 1/5 1/8 2/9 3/8 4/5	14. Simplify $5e + 9f - 8e - 8f$																
15. What is the perimeter of the following shape? 	16. Write down all the possibilities when rolling a fair six sided die, and flipping a fair coin.																
17. What is 30% of 180?	18. Write an expression for the total cost of 15 bracelets and 6 watches.																
19. How many millimetres are in 53cm	20. If the pictogram below represents peoples favourite sports, how many chose tennis? <table border="1" data-bbox="806 1837 1240 2030"> <thead> <tr> <th colspan="2">Sports Played by 3rd Graders</th> </tr> </thead> <tbody> <tr> <td>football</td> <td></td> </tr> <tr> <td>tennis</td> <td></td> </tr> <tr> <td>rugby</td> <td></td> </tr> </tbody> </table> <p>Key  = 10 students</p>	Sports Played by 3 rd Graders		football		tennis		rugby									
Sports Played by 3 rd Graders																	
football																	
tennis																	
rugby																	
Total: /20	Personal Target:																

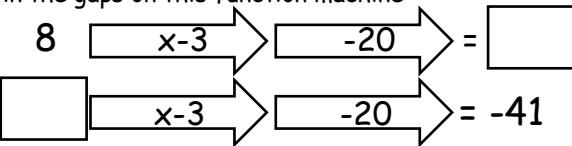
Mixed Topic Homework Sheet 13

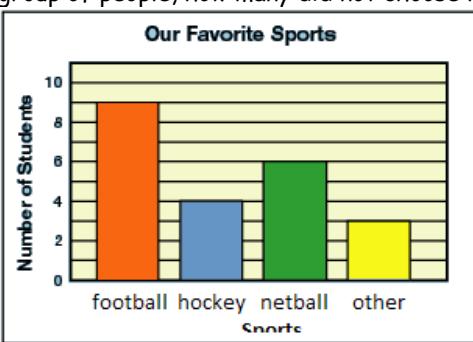
1. Calculate $20 \div (3 + 7) =$	2. Fill in the gaps on this function machine 												
3. Write the following ratio in its simplest form, 12:60	4. If the perimeter of a shape is 36cm, what could the width and length be?												
5. If I have 35 pencils and 7 are blue, what is the probability of me choosing a blue pencil?	6. What is the median of the following set of numbers? 17, 19, 26, 29, 32, 33, 40, 43, 45, 58, 61												
7. List all the factors of the number 60	8. Write the next three terms of the following sequence: 15, 18, 21, _____, _____, _____												
9. If I need 8 bags of cement to make 40kg of concrete, how many bags would I need to make 100kg of concrete.	10. Calculate the size of the missing angles, and state the reasons for your answer. 												
11. Find the mean for the following set of numbers: 15, 15, 16, 19, 21, 25, 28, 31, 34	12. If the probability of picking a green marble from a bag of green and red marbles is 0.45, what is the probability of choosing a red marble?												
13. Write the following decimals from smallest to largest: 0.203 0.14 0.014 0.9 0.09	14. Simplify $4a \times 6 + 5b \times 3$												
15. What is the width of the shape below? 	16. If the probability of a pin landing point up is 0.4, how many times would I expect it to land point up if I were to drop the pin 200 times?												
17. What is 55% of 340	18. Solve the following equation: $4g - 5 = 27$												
19. How many litres is 53830 ml?	20. Based on the bar chart below, how many people said history was their favourite subject?  <table border="1"> <caption>Data for Favorite Subject Bar Chart</caption> <thead> <tr> <th>Subject</th> <th>Number of People</th> </tr> </thead> <tbody> <tr> <td>History</td> <td>5</td> </tr> <tr> <td>Reading</td> <td>10</td> </tr> <tr> <td>Art</td> <td>8</td> </tr> <tr> <td>Science</td> <td>4</td> </tr> <tr> <td>Math</td> <td>6</td> </tr> </tbody> </table>	Subject	Number of People	History	5	Reading	10	Art	8	Science	4	Math	6
Subject	Number of People												
History	5												
Reading	10												
Art	8												
Science	4												
Math	6												
Total: _____ /20	Personal Target:												

Mixed Topic Homework Sheet 14

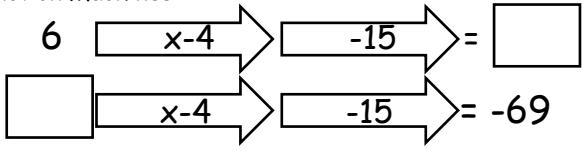
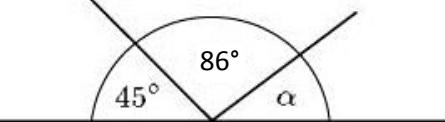
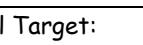
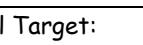
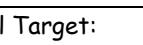
1. Calculate $(4 + 5) \times (4 - 7)$	2. Fill in the gaps on this function machine 
3. Write the following ratios in their simplest forms, 5:35 3:39 15:75	4. What is the perimeter of the following shape? 
5. If I have 8 apples, 8 pears and 2 oranges, what is the probability of choosing a pear?	6. What is the mode of the following set of numbers? 4, 5, 8, 5, 2, 6, 4, 5, 4, 8, 6, 4
7. List 3 multiples of 7.	8. What is the nth term rule of the following sequence? 3, 5, 7, 9
9. If a company need 50 potatoes to make 125 packets of crisps, how many potatoes would they need to make 250 packets of crisps?	10. What is the size of the missing angle labelled x? 
11. Find the median for the following set of numbers: 25, 22, 13, 36, 17, 25, 34, 22, 19	12. If the probability winning a game is 0.15, and the probability of drawing is 0.4, what is the probability of losing?
13. Write the following in order from smallest to largest: 0.13, $1/8$, $2/5$, 0.35, 31%	14. If $a = 4$ and $b = 7$, what would $3a + 4b$ be equivalent to?
15. What is the area of a square with a side length of 12cm.	16. If the probability of the next car I see being red is 0.3, how many of the next 300 cars I see would I expect to be red?
17. Increase 90 by 20%	18. Solve the following equation: $5a - 12 = 28$
19. How many centimetres is 67.5 metres?	20. If the pie chart below represents favourite dinners of 300, how many people chose chips? 
Total: /20	Personal Target:

Mixed Topic Homework Sheet 15

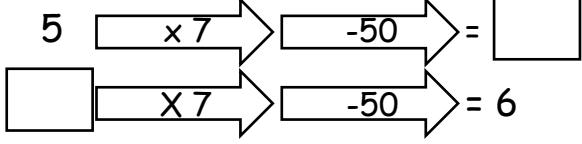
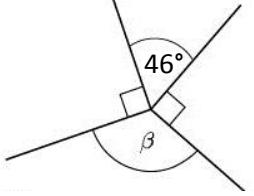
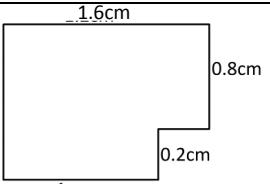
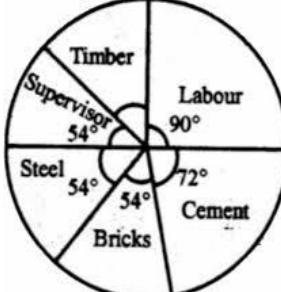
1. Calculate $16 - 3 + (5-2) =$	2. Fill in the gaps on this function machine 
3. If the ratio of red socks to blue socks is 3:8, how many red socks would I have if I had 24 blue socks?	4. What is the perimeter of a football pitch of length 104m and width of 65m?
5. If I have 55 counters, 20 are red, 5 are green and the rest are blue, what is the probability of not choosing a red counter?	6. What is the mode of the following set of numbers? 64, 58, 64, 72, 55, 64, 55, 72, 65, 55
7. Express 48 as a product of its prime factors.	8. Write the nth term rule of the following sequence. -6, 5, 16, 27, 38
9. If I need 65g of sugar to make 5 donuts, how much sugar do I need to make 20 donuts?	10. Calculate the size of the angle labelled x, and state the reason for your answer. 
11. Find the median for the following set of numbers: 2, 8, 9, 2, 4, 5, 7, 6	12. If the probability of choosing a strawberry from a bag of strawberries, pears and apples is 0.42, and the probability of choosing a pear is 0.17, what is the probability of choosing an apple?
13. Write the following from smallest to largest: $\frac{3}{4}$ 0.6 $\frac{2}{3}$ 0.7 $\frac{4}{5}$, 63%	14. If $x = 7$ and $y = -2$, what is the value of $5x + 2y + 2x + 5y$
15. What is the width of a square with an area of 64cm^2	16. What is the probability of choosing a black card from a standard pack of cards?
17. Decrease 160 by 15%	18. Solve the following equation: $6(x + 3) = 72$
19. How many metres are in 9.86km?	20. If the bar chart below represents favourite sports of a group of people, how many did not choose hockey?
Total: /20	Personal Target:



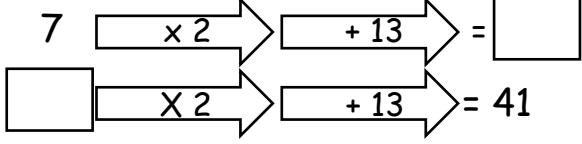
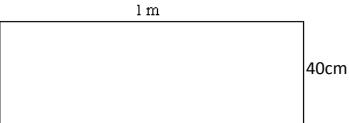
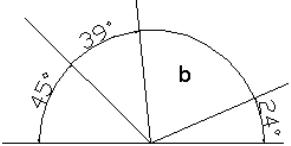
Mixed Homework Sheet 16

<p>1.4×5^2</p>	<p>2. Function Machines</p> 														
<p>3. For every 7 boys on a softball team there are 2 girls. What is the ratio of boys to girls?</p>	<p>4. The perimeter of a rectangle is 244 inches. The width is 36 inches. What is the length of the rectangle?</p>														
<p>5. What is the probability of choosing a green marble from a jar containing 4 red, 9 green and 3 blue marbles?</p>	<p>6. Mr Smith kept a record of the number of absences for each student in his class for one term. Here are his results. 0 0 0 8 4 5 5 3 2 1 5 3 5 2 Write down the mode.</p>														
<p>7. Express 175 as a product of its prime factors.</p>	<p>8. Write the next three terms of the following sequence 16, 8, 4, __, __, __</p>														
<p>9. If I need 65g of flour to make 20 breadsticks, how much flour would I need to make 140 breadsticks?</p>	<p>10. What is the size of angle α</p> 														
<p>11. The highest mark in the Science test was 88. Three students scored 46 which was 6 marks higher than the lowest score. What was the range of the scores?</p>	<p>12. If the probability of picking a green marble from a bag of green and red marbles is 0.4. If I choose a marble 100 times and replace it each time, how many times would I expect to pick a green marble?</p>														
<p>13. Order the following from smallest to largest. 0.76, 0.706, 0.7, 0.60, 0.067</p>	<p>14. Find the value of the following expression if $a = 7$, $b = 6$ and $c = 12$. $a + b + c$</p>														
<p>15. What is the difference between the perimeter and area of the following square?</p> 	<p>16. You have a pair of dice. Find the probability of rolling a prime number on both dice.</p>														
<p>17. Katie earns £45 per week for her part-time job. She is to be given a 10% pay rise. How much will she earn per week after the pay rise?</p>	<p>18. Solve the following equation: $-32 = x + 9$</p>														
<p>19. What is 12.5 L in ml?</p>	<p>20. Based on the pictogram below, how many cupcakes were eaten on Thursday?</p> <table border="1"> <tbody> <tr> <td>Monday</td> <td></td> </tr> <tr> <td>Tuesday</td> <td></td> </tr> <tr> <td>Wednesday</td> <td></td> </tr> <tr> <td>Thursday</td> <td></td> </tr> <tr> <td>Friday</td> <td></td> </tr> <tr> <td>Saturday</td> <td></td> </tr> <tr> <td>Sunday</td> <td></td> </tr> </tbody> </table> <p>$= 6$ cupcakes</p>	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Monday															
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Wednesday															
Thursday															
Friday															
Saturday															
Sunday															
<p>Total: /20</p>	<p>Personal Target:</p>														

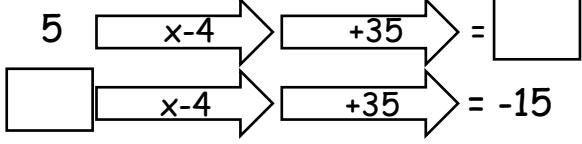
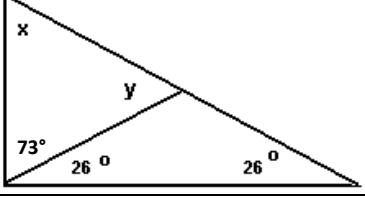
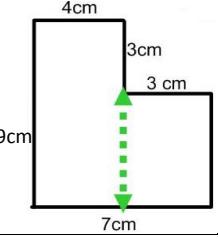
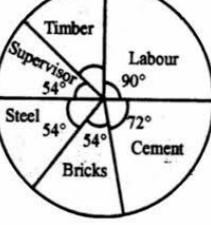
Mixed Homework Sheet 17

<p>1. $4 + 6 \times 7 - 11$</p>	<p>2. Function Machines</p> 
<p>3. The ratio of male to female birds in a bird cage was 5:2. For every 63 males there are _____ females.</p>	<p>4. If a square has sides of 2cm each, what is the area of the square in millimetres?</p>
<p>5. What is the probability of getting a 9 after rolling a single die numbered 1 to 6?</p>	<p>6. Mr Smith kept a record of the number of absences for each student in his class for one term. Here are his results. 0 0 0 8 4 5 5 3 2 1 5 6 7 2 4 Work out the mean.</p>
<p>7. Express 112 as a product of its prime factors.</p>	<p>8. What is the nth term rule of the following sequence 15, 10, 5, 0, -5, -10</p>
<p>9. If I need 105ml of milk to make 15 pancakes, how much milk do I need to make 30 pancakes?</p>	<p>10. Calculate the size of angle β</p> 
<p>11. Seven people took part in a sponsored swim. The number of lengths they completed were 16, 11, 8, 8, and 14, 16, 13. What is the median number of lengths completed?</p>	<p>12. A fair die is rolled 180 times, how many times would I expect it to either land on an odd number.</p>
<p>13. Order the following from smallest to largest: $\frac{2}{3}, \frac{3}{5}, \frac{13}{15}, \frac{2}{5}$</p>	<p>14. Find the value of the following expression if $a = 6, b = 12$ and $c = 9$. $c - b + a$</p>
<p>15. What is the perimeter of the shape?</p> 	<p>16. You have a deck of cards. Find the probability of drawing a red card on the first draw, replacing it and drawing a number less than 5 on the second draw.</p>
<p>17. Increase £270 by 35%</p>	<p>18. Solve the following equation: $5x + 8 = 53$</p>
<p>19. What is 19,580g in kg?</p>	<p>20. The pie chart shows the what costs are involved building a house. What fraction of the total is cement?</p> 
<p>Total: /20</p>	<p>Personal Target:</p>

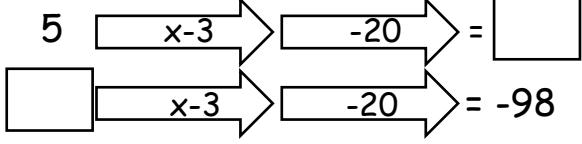
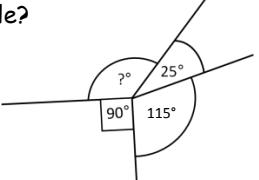
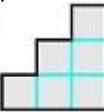
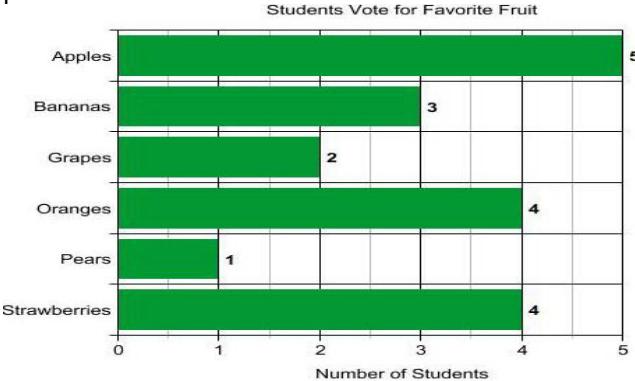
Mixed Homework Sheet 18

<p>1. $12 \div 3 + 6 \times 3^2$</p>	<p>2. Function Machines</p> 														
<p>3. At the malt shop the ratio of hotdogs sold to hamburgers sold was 9:5. For every _____ hamburgers sold there were 65 hotdogs sold.</p>	<p>4. What is the area of the rectangle?</p> 														
<p>5. What is the probability of choosing the letter b from the word probability?</p>	<p>6. Peter rolled a 6-sided dice ten times. Here are his scores. 3 2 4 6 3 3 4 2 5 4 2 6 3 4 Work out the median of his scores.</p>														
<p>7. What is the highest common factor of 30 and 450?</p>	<p>8. What are the missing terms in this sequence? 2, ___, 16, 23, ___, 37, ___</p>														
<p>9. If I need 7kg of cement to make 32kg concrete, how much cement do I need to make 96kg of concrete?</p>	<p>10. Calculate the size of angle b.</p> 														
<p>11. What is the difference between the mean and the median of the following set of numbers; 10, 32, 10, 11, 7, 17, 18, 21</p>	<p>12. Cards are randomly selected from a pack of cards and each then replaced before the next choice. Out of 65 choices how many times would I expect to pick a picture card?</p>														
<p>13. Order the following from smallest to largest: $\frac{3}{7}, \frac{1}{2}, 0.49, 0.2$</p>	<p>14. Find the value of the following expression if $a = 8, b = 4$ and $c = 9$. $4a + bc$</p>														
<p>15. What is the difference between the area and perimeter of the following square?</p>  <p>12cm</p>	<p>16. You have a deck of cards. Find the probability of drawing an ace on the first draw, replacing it and drawing a Spade card on the second draw</p>														
<p>17. The prices of all the televisions in a shop are to be increased by 12%. Calculate the new price of a television that originally cost £150</p>	<p>18. Solve the following equation: $22 = -2x$</p>														
<p>19. What is 56cm in mm?</p>	<p>20. If 12 red boxes were sold on Tuesday, add a key to the pictogram to make it correct.</p> <table border="1"> <thead> <tr> <th>Days</th> <th>Number of Red-Boxes Sold</th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td></td> </tr> <tr> <td>Tuesday</td> <td></td> </tr> <tr> <td>Wednesday</td> <td></td> </tr> <tr> <td>Thursday</td> <td></td> </tr> <tr> <td>Friday</td> <td></td> </tr> <tr> <td>Saturday</td> <td></td> </tr> </tbody> </table>	Days	Number of Red-Boxes Sold	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
Days	Number of Red-Boxes Sold														
Monday															
Tuesday															
Wednesday															
Thursday															
Friday															
Saturday															
<p>Total: _____ /20</p>	<p>Personal Target: _____</p>														

Mixed Homework Sheet 19

<p>1. $8 \times (4 + 6)$</p>	<p>2. Function Machines</p> 
<p>3. For every 12 Wii games Sarah owned she had 4 PS3 games. What is her ratio of Wii games to PS3 games in its simplest form?</p>	<p>4. A rectangle has a perimeter of 28 cm and an area of 48 cm^2. What are the lengths of the shorter side and longer side?</p>
<p>5. What is the probability of choosing a jack, queen, a king or an ace from a standard deck of playing cards?</p>	<p>6. What is the range of the following set of data? 12 1 10 1 9 3 4 9 7 9 13 16</p>
<p>7. What is the lowest common multiple of 14 and 8?</p>	<p>8. What is the nth term rule of the following sequence? 4, 9, 14, 19, 24</p>
<p>9. If the exchange rate is £1 = € 1.35, and I had €560 to change back to pounds, how many pounds would I get?</p>	<p>10. Find the size of angles x and y</p> 
<p>11. The weights of six dogs in kilograms are; 12.1, 14.3, 10.8, 14.0, 10.7, 12.3, 17.4 and 15.5. Calculate the mean weight to one decimal place.</p>	<p>12. Cards are randomly selected from a pack of cards and each then replaced before the next choice. Out of 65 choices how many times would I expect to pick a card numbered from 3 to 7?</p>
<p>13. Order the following from smallest to largest: $\frac{4}{5}, \frac{11}{20}, \frac{9}{10}, \frac{3}{4}$</p>	<p>14. Find the value of the following expression if $a = 2, b = 7$ and $c = 11$. $4(a + b)$</p>
<p>15. What is the area of the shape below?</p> 	<p>16. You have a deck of cards. Find the probability of drawing a face card that is not red.</p>
<p>17. Decrease €400 by 22%</p>	<p>18. Solve the following equation: $-3 + 2x = 7$</p>
<p>19. What is 720cm in m?</p>	<p>20. The pie chart below shows costs when building a house. What angle is required for timber, and if the total cost of the build was £45000, how much did the timber cost?</p> 
<p>Total: /20</p>	<p>Personal Target:</p>

Mixed Homework Sheet 20

<p>1. $10 \times 6 \div (8 - 4) \times 2$</p>	<p>2. Function Machines</p> 														
<p>3. The ratio of cars to trucks in a parking lot was 3:7. For every _____ cars there were _____ trucks.</p>	<p>4. A rectangle has a perimeter of 26 cm and an area of 40 cm². What are the lengths of the shorter side and longer side?</p>														
<p>5. What is the probability of choosing a red jack or a red queen from a standard deck of 52 playing cards?</p>	<p>6. What is the median of the following set of data? 12 1 10 1 9 3 4 9 7 9 7 9 10</p>														
<p>7. Express 325 as a product of its prime factors.</p>	<p>8. What are the missing terms in the following sequence? ____, 4, 11, ___, ___, 32</p>														
<p>9. Is the exchange rate is £1 = \$1.89, how many dollars would I get for £560</p>	<p>10. What is the size of the missing angle?</p> 														
<p>11. The weights of six dogs in kilograms are; 12.1, 14.3, 10.8, 14.0, 10.7, 18.2, 17.7 and 15.5. Calculate the median weight of the dogs.</p>	<p>12. The probability of a biased coin landing on heads is 0.65. I flip the coin 400 times, how many times would the coin land on heads?</p>														
<p>13. Order the following from smallest to largest. $\frac{7}{9}, \frac{2}{3}, 0.66, 78\%$</p>	<p>14. Find the value of the following expression if $a = 9, b = -3$ and $c = 11$. $5(a + bc)$</p>														
<p>15. What is the perimeter of the following shape if each square is one centimetre wide?</p> 	<p>16. You have a deck of cards. Find the probability of drawing a 9.</p>														
<p>17. In a sale the cost of a computer is reduced by 35%. The normal price of the computer was £1100. Calculate the sale price of the computer</p>	<p>18. Solve the following equation $5x + 6 = -14$</p>														
<p>19. What is 24.2m in mm</p>	<p>20. The bar chart shows students favourite fruit. What is the difference between votes for strawberries and votes for pears?</p>  <table border="1"> <caption>Students Vote for Favorite Fruit</caption> <thead> <tr> <th>Fruit</th> <th>Number of Students</th> </tr> </thead> <tbody> <tr> <td>Apples</td> <td>5</td> </tr> <tr> <td>Bananas</td> <td>3</td> </tr> <tr> <td>Grapes</td> <td>2</td> </tr> <tr> <td>Oranges</td> <td>4</td> </tr> <tr> <td>Pears</td> <td>1</td> </tr> <tr> <td>Strawberries</td> <td>4</td> </tr> </tbody> </table>	Fruit	Number of Students	Apples	5	Bananas	3	Grapes	2	Oranges	4	Pears	1	Strawberries	4
Fruit	Number of Students														
Apples	5														
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<p>Total: _____ /20</p>	<p>Personal Target:</p>														

1	Bidmas	Function Machines	Simplify Ratio	Area and perimeter	Prime Numbers	Sequences	Ratio	Angles	Averages	Probability	Ordering FDP	Simplify / Substitute	Area and perimeter	Probability	percentages	Forming and solving	Metric Units	Data Presentation
2																		
3																		
4																		
5																		
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Reflection piece		
Sheet	Targets	Achievement towards targets
Sheet 1		
Sheet 5		
Sheet 10		
Sheet 15		
Sheet 20		