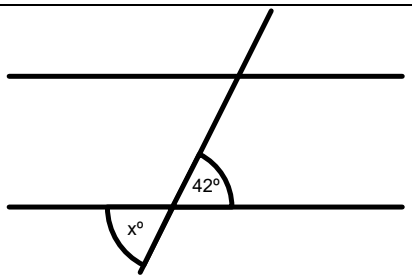
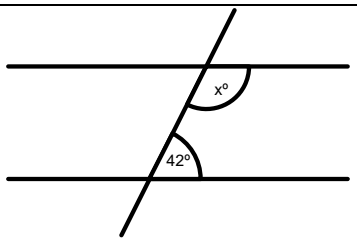
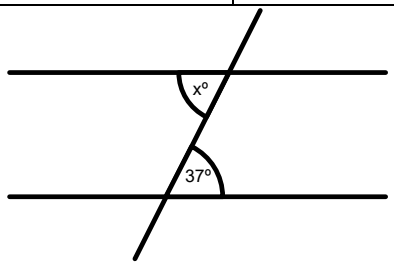
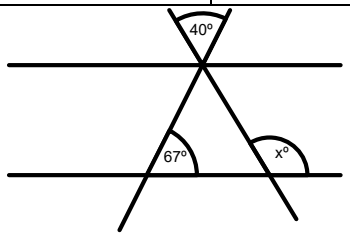
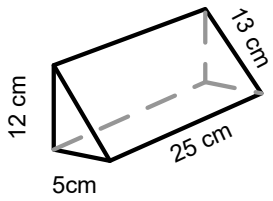
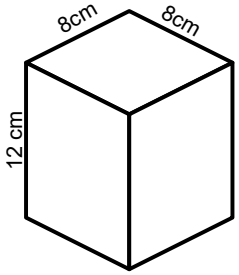
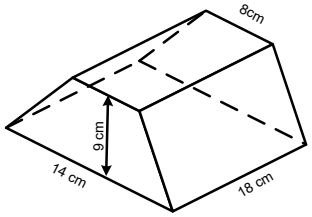
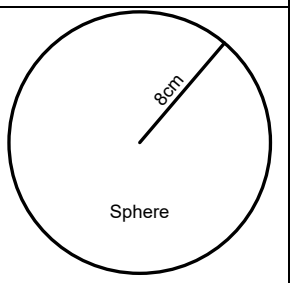
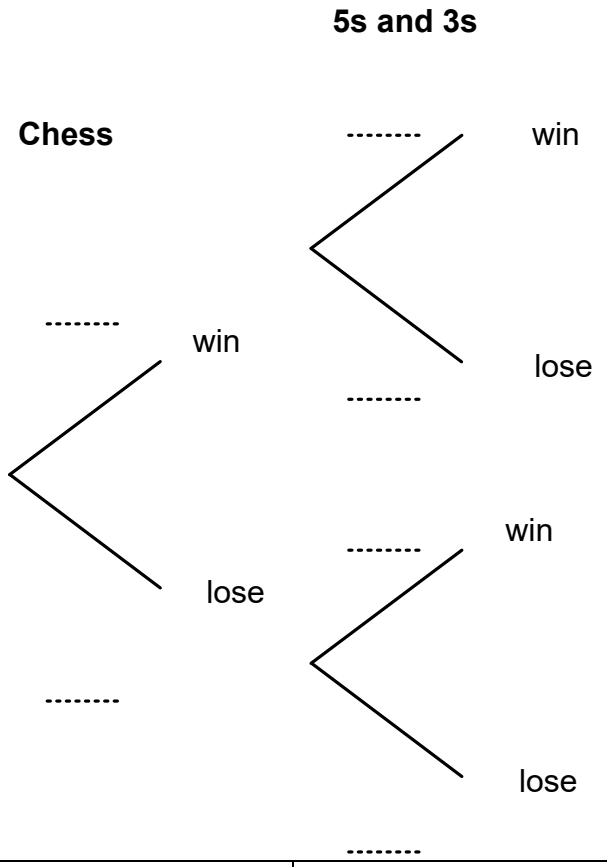
What angle and why?				Angles about a point total ?
Factorise	16x-24	$4c^3 + 8c$	$2y^2 - 7y$	$\frac{3}{4}x + \frac{7}{8}$	$x^2 - 3x - 28$
What angle and why?				Exterior angle in a nonagon?
Volume				
Percentage Increase	The price of fuel increases from £1.48 per litre to £1.71 per litre. Calculate the percentage increase.	Bill grows from being 150 cm to 168cm in a year. Calculate the percentage increase.	A cuboid pond is 3m by 1.5 m by 75cm deep. The owner increases the dimensions to 3.2m by 1.8m by 1.25m deep. Calculate the percentage increase in size.	Gas prices rise by 20%. The cost of my gas bill is now £165 per month. How much was it before the rise?

<table>
<tr><td>Inequalities</td><td>$8x + 25 > 620$
Calculate the minimum value of x.</td><td>$80x + 120 < 1200$
Calculate the maximum value of x.</td><td>$12 < 3x + 6 < 36$
Between what two values is x?</td><td>$45 \leq 9x - 36 \leq 81$
Write the interval for x.</td></tr>
<tr><td>Formulae</td><td>Find s
$s = ut + \frac{1}{2}at^2$
u=2
t=40
a=7</td><td>Find v
v=u+at
u=2 t=45 a=7</td><td>Is (2,-7) on the line
$(x-2)^2 + (y+3)^2 = 16$?</td><td>The surface area of a ball is $4\pi r^2$.
How much leather is needed for a ball of diameter 34cm?</td></tr>
<tr><td>Algebraic Expansions</td><td>$6(3x + 2) + 4(5x - 2)$</td><td>$(2x + 3)(4x - 7)$</td><td>$(6x + 3)(3x + 8)^2$</td><td>$\left(\sqrt{a^2 + b^2}\right)^4$</td></tr>
<tr><td>Prime Numbers between</td><td>80 and 100</td><td>20 and 30</td><td>68 and 89</td><td>260 and 290</td></tr>
<tr><td>Find the mean size</td><td><table><tr><th>Family size</th><th>Frequency</th></tr><tr><td>3</td><td>4</td></tr><tr><td>4</td><td>11</td></tr><tr><td>5</td><td>6</td></tr><tr><td>6</td><td>3</td></tr></table></td><td>The mean family size for another group of 24 people is 2.25. Work out the mean for both groups of people combined.</td><td><table><tr><th>Shoe size</th><th>Frequency</th></tr><tr><td>8</td><td>3</td></tr><tr><td>9</td><td>17</td></tr><tr><td>10</td><td>14</td></tr><tr><td>11</td><td>13</td></tr><tr><td>12</td><td>4</td></tr></table></td><td>The mean shoe size for another 35 people is 12.4. Find the mean when both groups are combined</td></tr>
</table>

Factorise	$(4x-25)^2$	$(25x^2y^4-16x^6)^2$	Write 84 as a product of prime factors	HCF(24,96)	HCF(85,150)-HCF(12,34)
Inequalities =, <, >	$\frac{17}{5}$ $3\frac{2}{3}$	$\frac{4}{5}$ of 35 2^5	$\sqrt{\frac{16}{25}}$ $\frac{3}{4}$	$\left(\sqrt{64}\right)^4$ 2^{12}	
Exchange Rates £1:$1.29	Which is the better value per item? 3 pairs of socks in the UK for £4.80 or 5 pairs of socks in the US for $8.20?	Which is the better value per item? 2 jumpers in the UK for £64 or 3 jumpers in the US for $126?	Which is better value per item? 6 holidays in Florida for £1500 or 5 holidays in London for $1800?	Which is the better value per item? 3 pairs of shoes in the UK for £135 or 2 pairs in the US for $118?	
Ratio	David plants orange trees and lemon trees in the ratio 5:3. He plants 15 lemon trees. How many orange trees does he plant?	Red cars and blue cars are sold in the ratio 3:7. 20 more blue cars are sold than red ones. If each car costs £16,500, how much money is paid for the cars altogether?	Green cubes cost £30. Red cubes cost $1\frac{1}{2}$ times as much. The ratio of money spent on red to green cubes is 3:1. What is the minimum amount of money spent on cubes assuming that there was at least two of each colour?		
Draw a scattergraph	negative correlation	positive correlation	no correlation		

Probability

The probability of Zach winning at Chess is 0.35. The probability that he will win at fives and threes is 0.4. Complete the probability tree diagram.



What are the chances of Zach winning at both games?

What are the chances of Zach winning one game and losing the other?

Standard form

Write these numbers in standard form.	Write these numbers in standard form.	Write these numbers in standard form.	Write these numbers in standard form.
12	1293.392	6	0.007

Ordinary form

Write these numbers in ordinary form.	Write these numbers in ordinary form.	Write these numbers in ordinary form.
7×10^{0}	8.937×10^{-4}	3.938×10^{4}