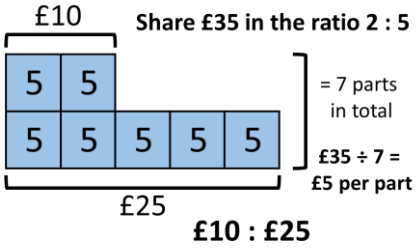
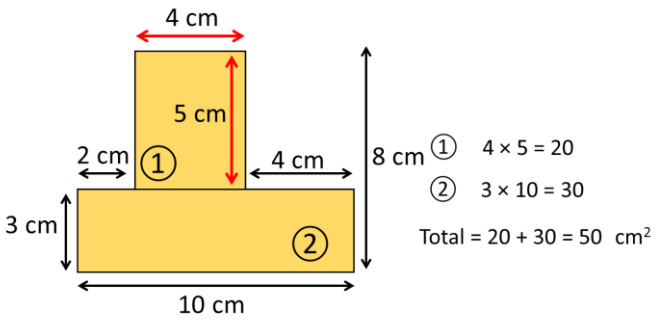
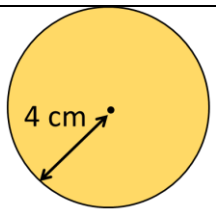
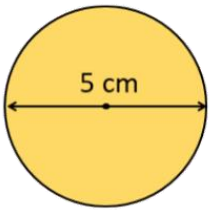
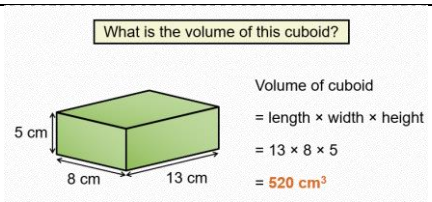
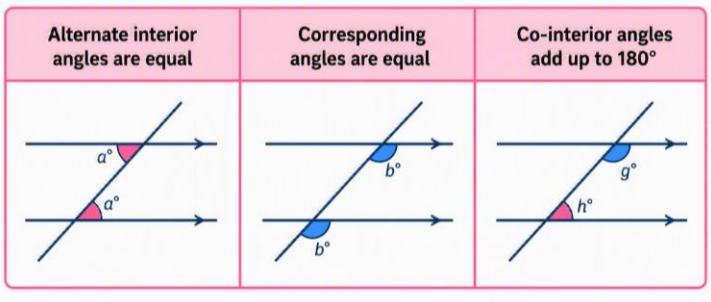
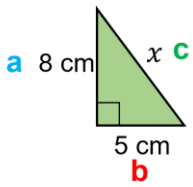
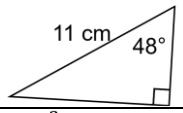
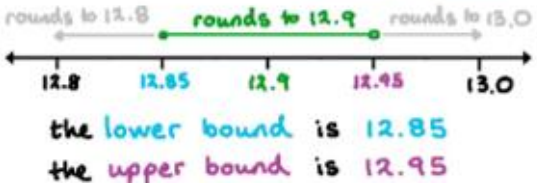
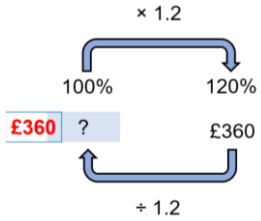
Topic	Worked Example	Sparx Code
Divide decimals	Work out 72 ÷ 0.8 Multiply both values by 10 to make the divisor a whole number 72 ÷ 0.8 = 720 ÷ 8 Use the bus stop method 8) 7 2 0 = 90	U868
Ratio		U577, U753
Area of compound shapes		U970, U575
Area of circles (formula on the sheet!)	 $A = \pi r^2$ $A = \pi \times (4)^2$ $= 50.3 \text{ cm}^2$	U950
Circumference of circles (formula on the sheet!)	 $C = \pi d$ $C = \pi \times 5$ $= 15.7 \text{ cm}$	U604
Volume of 3D shapes		U786, U174, U915
Angles in parallel lines		U826

Pythagoras (formula on the sheet!)	What is the length of x? Give your answer to 2 d.p.  $a^2 + b^2 = c^2$ $8^2 + 5^2 = 89$ $c^2 = 89$ $c = \sqrt{89} = 9.43\text{cm}$	U385, U828
Right-angled Trigonometry	  $Sin\ \theta \times H = O$ $Sin\ 48 \times 11 = O \quad = 8.2 \quad cm$	U605, U283, U545
Factorising quadratics	Factorise: $x^2 + 2x - 15$ b c $\times$ | x | -3 x | x^2 | $-3x$ $+5$ | $+5x$ | -15 $(x - 3)(x + 5)$ b = *sum* of number pair c = *product* of number pair List factors of c, find a pair with a sum of b. +5, −3 ✓ +15, −1 −5, +3 −15, +1	U178
Solving simultaneous equations	$3x + 2y = 16$ $+ \quad 2x - 2y = 4$ $5x = 20$ $x = 4$ Substitute x back in to find y. $3(4) + 2y = 16$ $12 + 2y = 16$ $2y = 4$ $y = 2$	U760
Finding error intervals	A number, n, rounded to one decimal place is 12.9. Write an inequality to show the lower and upper bounds of n.  the lower bound is 12.85 the upper bound is 12.95	U657
Finding the original amount in percentage calculations	I invested some money in the bank and got 20% interest. At the end of the year I had £360. How much did I put in the bank?  	U286
To use compound interest	$370 is invested & earns 30% interest per year. How much is the investment worth after 5 years? $370 \times 1.3^5 = \$1373.78$ principal, multiplier, period	U332