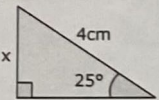
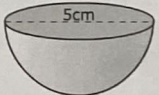
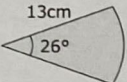


Higher GCSE – Essential Skills 2

Show all of your working out

1	Factorise the expression $x^2 - 9x + 10$	
2*	Work out the missing length to 3sf 	
3	Simplify the following surd $\sqrt{45}$	
4*	Malcolm buys a caravan for £12000. It depreciates by 31% per year. How much is it worth after 7 years?	
5*	Use the quadratic formula to solve the equation to 3sf: $5x^2 - 2x - 11 = 0$	
6*	$a = 3.4$ (1dp) $b = 5.8$ (1dp) $c = 5.12$ (2dp) Calculate the lower bound of the following to 4dp $ab + c$	
7*	Work out the volume of the hemisphere to 3sf 	

8	Solve the following simultaneous equations $3a + 4b = 12$ $a + 5b = 122$	
9	M is inversely proportional to N. $M=10$ when $N=2$ Write down a formula for M in terms of N	
10	What is the n^{th} term of the following sequence? 2, 10, 18, 26, 34	
11	Simplify $(p^7 \times p^4)^3$	
12*	Zeeshan buys a hat for £21 in a 30% off sale. What was the original price of the hat?	
13	A circle has a radius of 7 and centre (2,3). Write down the equation of the circle.	
14*	Find the perimeter of the sector to 3sf 	
15	Write the following in the form $(x + p)^2 + q$ $x^2 - 6x + 15$	