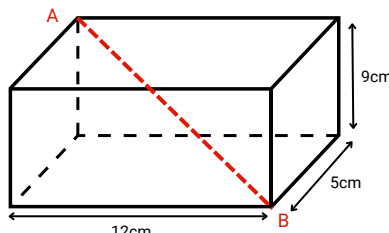
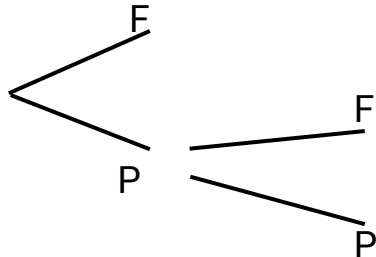
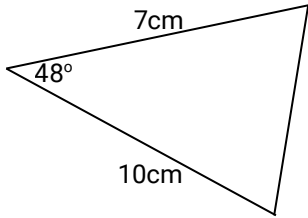




CCEA GCSE Maths Revision Mat

M8



Circle the rational number $\sqrt{45}$ π $\sqrt{81}$ $\sqrt{7}$	Express the following as a fraction in its simplest form: $x = 0.\dot{7}$	Simplify: $16^{\frac{1}{2}}$ $64^{\frac{1}{3}}$ $125^{\frac{1}{3}}$	y is inversely proportional to x. When x = 4, y = 15. Find y when x = 10.																
Find the length of the diagonal AB. 	£2500 is invested at 3% compound interest. Circle the correct formula for V after 4 years. $V = (2500 + 0.03)^4$ $V = 2500(1.03)^4$ $V = 2500(0.97)^4$ $V = 2500(1.3)^4$	Complete the table of values for $y = 2^x$ <table border="1" data-bbox="1128 873 1583 984"><tr><td>x</td><td>-3</td><td>-2</td><td>-1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	x	-3	-2	-1	0	1	2	3	y								A company tests its products using two safety checks. • 85% of the products pass the first check. • Products that fail are discarded. • 92% of the products that pass the first check also pass the second check. • Products that fail the second check are discarded. Complete the tree diagram and work out the probability that the product is discarded. 
x	-3	-2	-1	0	1	2	3												
y																			
The equation of a circle is: $x^2 + y^2 = 81$ Find the radius of the circle.	Find the area of the triangle: 	Simplify: $2\sqrt{6} \times 3\sqrt{24}$																	

Answers

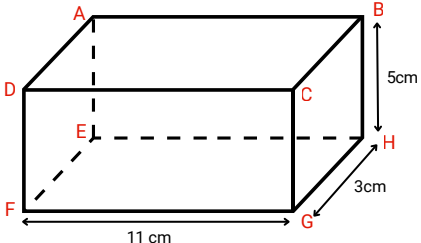
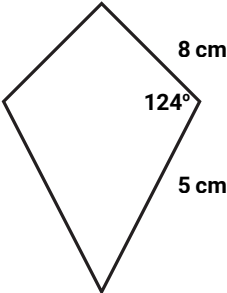




CCEA GCSE Maths Revision Mat

M8



Simplify, by rationalising the denominator. $\frac{5}{3 - \sqrt{2}}$	Express the following as a fraction in its simplest form: $x = 0.3\dot{6}$	Simplify: $49^{-\frac{1}{2}}$ $27^{-\frac{1}{3}}$ $81^{-\frac{1}{4}}$	y is inversely proportional to the square of x. When $x = 3$, $y = 8$. Find y when $x = 6$
Find the angle BFH 	£40,000 depreciates by 0.5% each year. Circle the correct formula for its value after 3 years. $V = 40000(1.005)^3$ $V = 40000(0.5)^3$ $V = 40000(0.995)^3$ $V = (40000 - 0.005)^3$	Solve the simultaneous equations: $y = 2x + 1$ $x^2 + y^2 = 65$	There are 12 counters in a bag. 8 of the counters are yellow. 4 of the counters are green. Aisha takes at random two counters from the bag. Work out the probability that Aisha takes one counter of each colour.
The point (6,8) lies on a circle with centre (0,0). Find the equation of the circle.	Find the area of the kite. 	Simplify fully: $3\sqrt{12} + 2\sqrt{27} - \sqrt{48}$	Show your working.

Answers

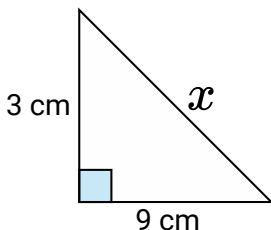
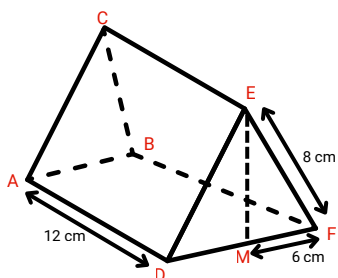
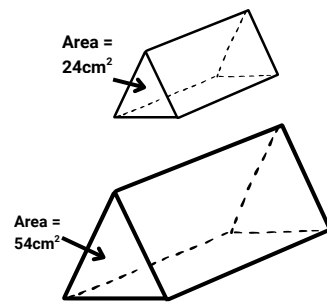
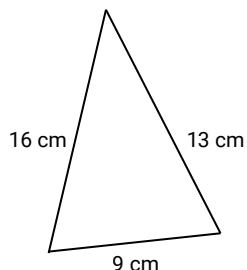




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M8



Find the exact value of x: 	Simplify fully: $(2 + \sqrt{3})(4 - \sqrt{12})$	Simplify: $64^{-\frac{2}{3}}$ $16^{-\frac{3}{4}}$ $32^{-\frac{4}{5}}$	P is inversely proportional to the square of x. When $x = 3$, $P = 8$. Find the value of x when $P = 4.5$
Find the angle ADC 	A rare painting worth £80,000 depreciates by 0.25% each year. Calculate its value after 4 years.	Solve the simultaneous equations: $y = 3x + 2$ $x^2 + y^2 = 100$	The two triangular prisms are mathematically similar. The volume of the smaller prism is 160cm^3. Find the volume of the larger prism. 
Find the equation of the tangent to the circle. $x^2 + y^2 = 25$ at the point (3,4)	Simplify: $\left(\frac{8}{27}\right)^{-\frac{2}{3}}$ $\left(\frac{25}{64}\right)^{-\frac{3}{2}}$	Find the area of the triangle: 	

Answers

