

Surface Area

November 2024 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
14 (a)	5	P1	for a start of a method to find the height, eg $10 \times 4 (= 40)$ or $200 \div 10 (= 20)$ or $200 \div 4 (= 50)$ or for forming a correct equation $10 \times 4 \times h = 200$	
(b)	126	A1	cao	
		M1	for a start to find the area of at least one face, eg $6 \times 3 (= 18)$ or $5 \times 3 (= 15)$ or $6 \times 5 (= 30)$	Do not award first M if multiplied by a third length (ie volume calculation)
		M1	for combining the area of at least three of the correct faces eg "18" + "15" + "30" (= 63) or $2 \times "18" + "15"$	May be part of a larger addition including incorrect areas. Do not award if more than 6 areas added.
		A1	cao	

November 2021 Paper 1

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26	Shown	M1	for a correct expression for the area of one face of the cube, eg. x^2 or a correct expression for the surface area of the cube, eg $6 \times x^2$	No marks for $x = \sqrt{6\pi}$ without any working. $6 \times x^2 = 4 \times \pi \times 3^2$ $x^2 = 36\pi \div 6$ $x = \sqrt{6\pi}$
		M1	for a correct expression for the surface area of the sphere, eg $4 \times \pi \times 3^2 (= 36\pi)$	
		M1	for forming a suitable equation, eg $6 \times x^2 = 4 \times \pi \times 3^2$ or $6x^2 = "36\pi"$	
		A1	for completing the method to $x = \sqrt{6\pi}$ or $k = 6$	

