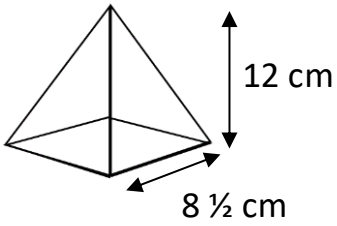
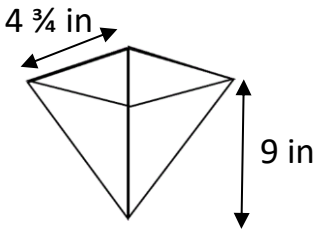
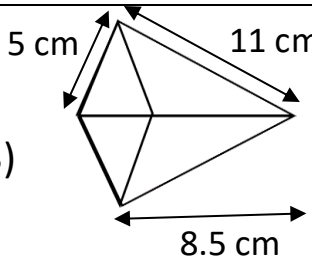
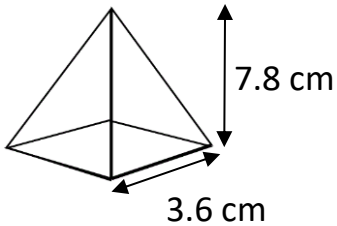
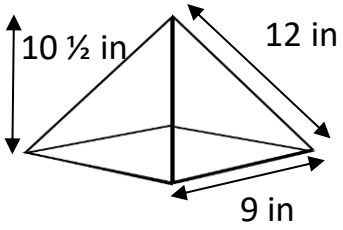
Name Date

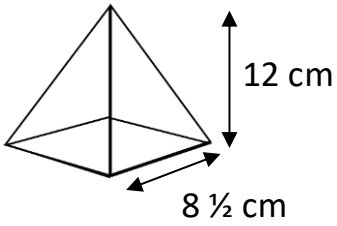
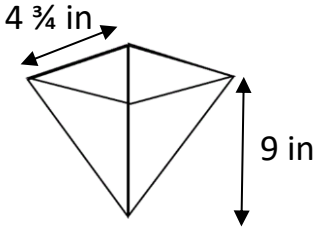
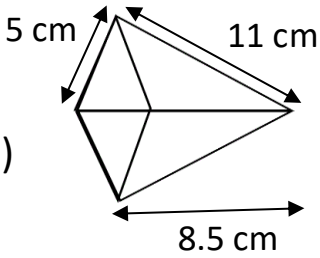
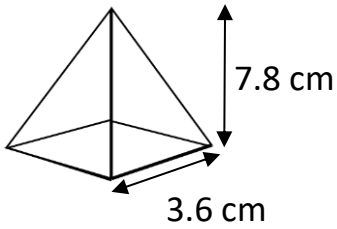
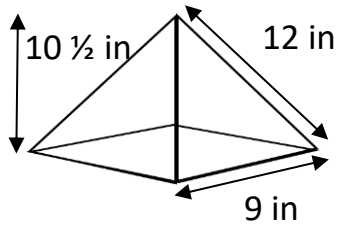
VOLUME OF A SQUARE BASE PYRAMID SHEET 2

Use the base edge and perpendicular height measurements to find the volume of these square base pyramids. Give your answers to 2 decimal places where appropriate.

PYRAMID	WORKING OUT	VOLUME
1) 		
2) 		
3) 		
4) 		
5) 		

Name Date

VOLUME OF A SQUARE BASE PYRAMID SHEET 2 ANSWERS

PYRAMID	WORKING OUT	VOLUME
1) 	Volume of a square base pyramid is $\frac{1}{3}\ b^2h$ $= \frac{1}{3} \cdot (8\frac{1}{2})^2 \cdot 12 = \frac{1}{3} \cdot (289/4) \cdot 12 = \frac{1}{3} \cdot 867$ $= 289$ So the volume is 289 cm^3.	289 cm^3.
2) 	Volume of a square base pyramid is $\frac{1}{3}\ b^2h$ $= \frac{1}{3} \cdot (4\frac{3}{4})^2 \cdot 9 = \frac{1}{3} \cdot (361/16) \cdot 9$ $= \frac{1}{3} \cdot (3249/16) = 1083/16 = 67.6875$ So the volume is 67.69 in^3 to 2 decimal places.	67.69 in^3 to 2 decimal places
3) 	In this case, the base edge is 5cm and the perpendicular height is 8.5 cm. Volume of a square base pyramid is $\frac{1}{3}\ b^2h$ $= \frac{1}{3} \cdot (5)^2 \cdot 8.5 = \frac{1}{3} \cdot 25 \cdot 8.5 = \frac{1}{3} \cdot (425/2)$ $= 425/6 = 70.8333\ldots$ So the volume is 70.83 cm^3 to 2 decimal places.	70.83 cm^3 to 2 decimal places.
4) 	Volume of a square base pyramid is $\frac{1}{3}\ b^2h$ $= \frac{1}{3} \cdot (3.6)^2 \cdot 7.8 = \frac{1}{3} \cdot 12.96 \cdot 7.8$ $= \frac{1}{3} \cdot 101.088 = 33.696$ So the volume is 33.70 cm^3 to 2 decimal places.	33.70 cm^3 to 2 decimal places.
5) 	In this case, the base edge is 9 inches and the perpendicular height is 10 ½ inches. Volume of a square base pyramid is $\frac{1}{3}\ b^2h$ $= \frac{1}{3} \cdot (9)^2 \cdot (10\frac{1}{2}) = \frac{1}{3} \cdot 81 \cdot 10\frac{1}{2}$ $= \frac{1}{3} \cdot (1701/2) = 567/2 = 283.5$ So the volume is 283.5 in^3.	283.5 in^3