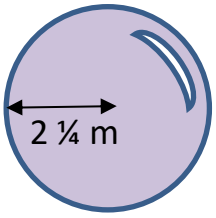
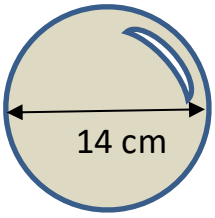
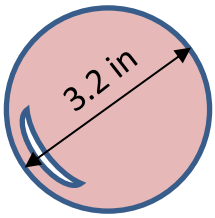
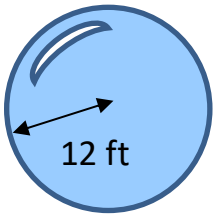
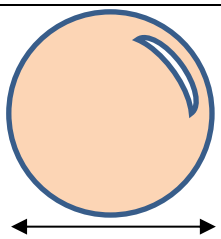
Name Date

VOLUME OF A SPHERE SHEET 2

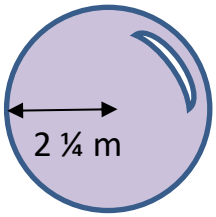
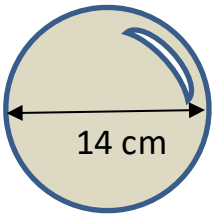
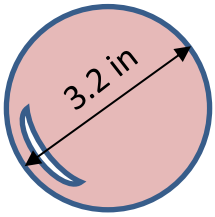
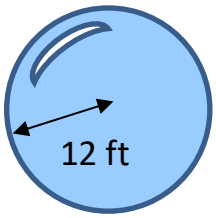
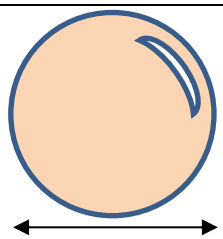
Use the radius or diameter measurements to find the volume of these spheres. Give your answers to 2 decimal places.

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

Name Date

VOLUME OF A SPHERE SHEET 2 ANSWERS

Use the radius or diameter measurements to find the volume of these spheres. Give your answers to 2 decimal places.

SPHERE	WORKING OUT	VOLUME
1) 	Volume of a sphere = $\frac{4}{3}\pi r^3$ = $\frac{4}{3}$ x π x $(2\frac{1}{4})^3$ = $\frac{4}{3}$ x π x $(\frac{729}{64})$ = $(\frac{243}{16})$ π = 47.71 m^3 to 2 decimal places	47.71 m^3
2) 	The diameter of the sphere is 14 cm, so the radius = 14 ÷ 2 = 7 cm Volume of a sphere = $\frac{4}{3}\pi r^3$ = $\frac{4}{3}$ x π x $(7)^3$ = $\frac{4}{3}$ x π x (343) = $(\frac{1372}{3})$ π = 1436.76 cm^3 to 2 decimal places	1436.76 cm^3
3) 	The diameter of the sphere is 3.2 in, so the radius = 3.2 ÷ 2 = 1.6 in Volume of a sphere = $\frac{4}{3}\pi r^3$ = $\frac{4}{3}$ x π x $(1.6)^3$ = $\frac{4}{3}$ x π x (4.096) = 5.46133.. π = 17.16 in^3 to 2 decimal places	17.16 in^3
4) 	Volume of a sphere = $\frac{4}{3}\pi r^3$ = $\frac{4}{3}$ x π x $(12)^3$ = $\frac{4}{3}$ x π x (1728) = 2304 π = 7238.23 ft^3 to 2 decimal places	7238.23 ft^3
5) 	The diameter of the sphere is 16.4 cm, so the radius = 16.4 ÷ 2 = 8.2 cm Volume of a sphere = $\frac{4}{3}\pi r^3$ = $\frac{4}{3}$ x π x $(8.2)^3$ = $\frac{4}{3}$ x π x (551.368) = 735.15733… π = 2309.56 cm^3 to 2 decimal places	2309.56 cm^3