

Notes for Lesson 12-4: Spheres

Fill in the following formulas:

Spheres:

TA =

V =

Use the formulas to complete the following:

1) A plane passes 4 cm from the center of a sphere with radius 8 cm. Find the area of the circle of intersection.

2) A spherical fishbowl has diameter 24 cm. To fill the fishbowl $\frac{3}{4}$ full, about how many liters of water will you need? Give your answer to the nearest 0.1 L where $1000 \text{ cm}^3 = 1 \text{ L}$.

3) Sphere A has radius 2 cm. Sphere B has radius 4 cm. Find the ratios of their surface areas and volumes.