Volume of Spheres

Day 2

Lesson 21

Review Warm Up

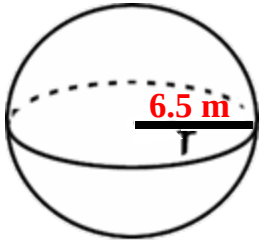
1) Solve: $4y^2 + 7 = 29y$

2) Find the distance between (-2,3) and (-3,-2).

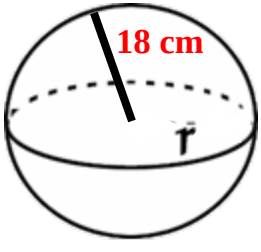
3) Find the slope (-2,3) and (-3,-2).

4) Find x. $-\frac{5x-3}{5} = \frac{x+2}{4}$

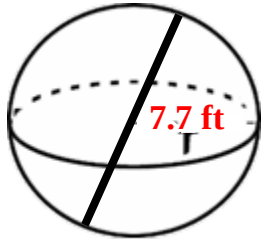
Pages 762 - 763 (10 - 17, 20 - 29)

10. 

530.93 m^2

11. 

4071.50 cm^2

12. 

186.27 ft^2

13. **a hemisphere**

14. **3.7 in**

15. **7.4 in**

16. **27.38 $\pi \approx$ 86.02 in^2**

17. **about 45.4 in^2**

20.

44,602.24 cm^3

21.

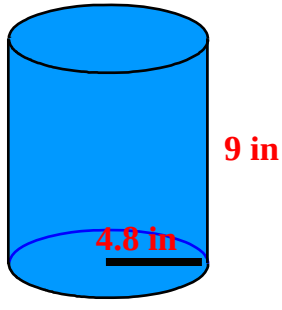
65.45 in^3

22.

3156.55 mm^3

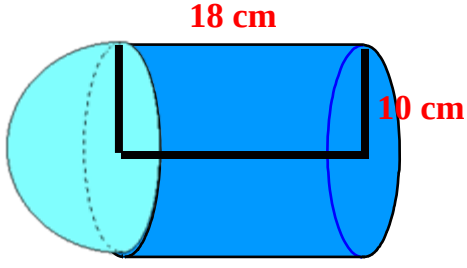
	Radius of Sphere	Circumference of Great Circle	Surface Area of Sphere	Volume of Sphere
23.	7 mm	14π mm	196π mm^2	$\frac{1372\pi}{3}$ mm^3
24.	6 in	12π in	144π in^2	288π in^3
25.	5 cm	10π cm	100π cm^2	$\frac{500\pi}{3}$ cm^3
26.	10 m	20π m	400π m^2	$\frac{4000\pi}{3}$ m^3

27.



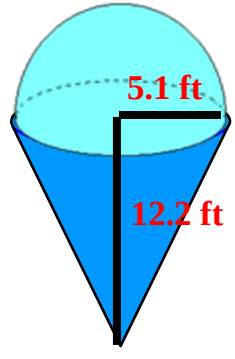
a. 488.58 in^2
b. 419.82 in^3

28.



a. 2073.45 cm^2
b. 7749.26 cm^3

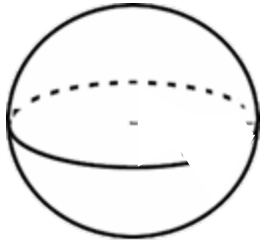
29.



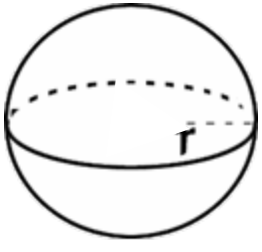
a. 375.29 ft^2
b. 610.12 ft^3

Sphere Worksheet

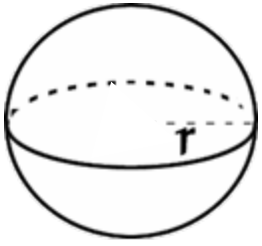
1. **Find the area and volume of a sphere with radius 9.**



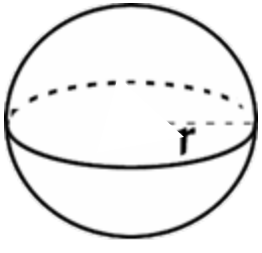
2. **Find the area and volume of a sphere with radius 2.**



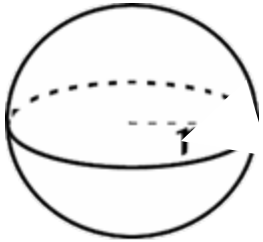
3. Find the area and volume of a sphere with radius 15.



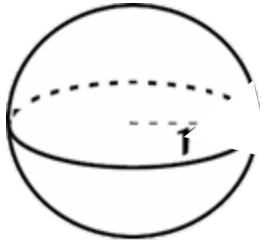
4. Find the radius and volume of a sphere with area 200 π



5. Find the radius and area of a sphere with volume 288 π



6. Find the radius and volume of a sphere with area 256 π



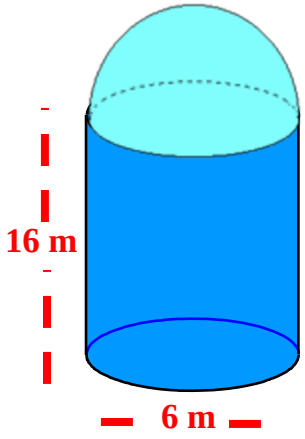
7. Find the area and volume of a sphere with radius 1/4.

8. Sphere A has radius 2 cm. Sphere B has radius 4 cm. Compare the volumes.

9. Sphere C has radius 3. Sphere D has radius 6. Compare the areas.

10. Sphere A has radius 4 and a hemisphere B has radius 8. Compare the volumes.

11. **A water storage tank consists of a cylinder capped with a hemisphere. Find the volume of the tank.**



12. **Find the volume of a sphere with area 36 π**

Homework

Complete Worksheet