1. Convert 27 ft to yd.

2. Convert 29 mg to g.

3. Convert 30 km/hr to mi/hr.

4. Convert 25 m to yd.

5. A chemist 5 L of solution. She needs to place it into 20 equally sized containers. How many milliliters will be contained in each jar?

6. Find the perimeter of the triangle below and express the answer in meters.

7. Convert 32 oz to g.

8. The unit price for a rare spice is $5.40 per oz. How much would be paid for 3 g of this spice?
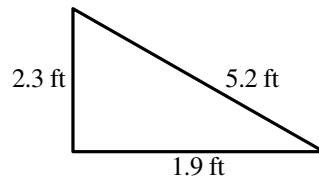
9. Find the volume of a cylinder with radius 3 cm and height 7 cm.

10. A chemical spill in the shape of a cone has polluted a volume of ground. The depth of the cone-shaped spill is 33 yd and the radius is 13 yd. Find the volume of polluted ground. Round to the nearest yard.

11. In the figure shown below, line ℓ is parallel to line m. Find the measure of $\angle x$.
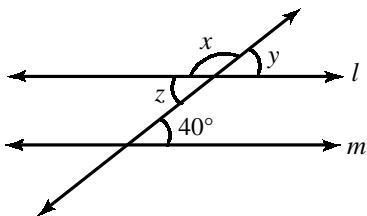
12. In the figure below, which angle is complementary to $\angle CAD$?
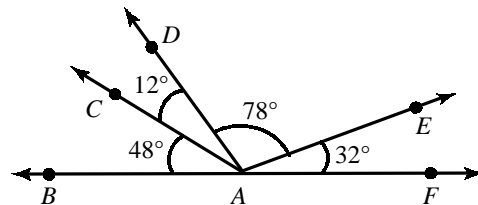
13. Simplify: $\sqrt{49} - \sqrt{16}$
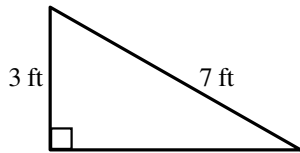
14. Simplify: $\sqrt{\dfrac{4}{25}}$

For the remaining problems use $\pi \approx 3.14$ and round to the nearest hundredth if necessary.

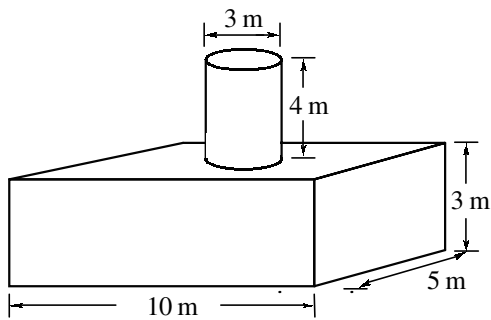**15.** Find the circumference of a circle with diameter 6 in.

16. Find the area of a circle with diameter 6 in.

17. Find the missing side of the triangle below.

3 ft   7 ft

18. Find the volume of a pyramid that is 10 m high and whose rectangular base measures 16 m by 12 m.

19. Find the volume of the solid shown below.

3 m

4 m

3 m

5 m

10 m

20. Find the missing side n in the similar triangles below.

n 3 ft

2 ft   8 ft