Name: _____

Date Started: _____ Date Completed: _____ Score: _____

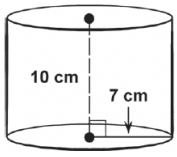
Learning Activity Sheet
Surface Area of Cylinders

A. Determine the amount of insulation material needed to cover the side of a water heater. (2 points for each step)

Step 1:	Find the circumference (C) of the base of the water heater. Use 3.14 for π. Given: Note that the radius is half the diameter. Since the diameter of the base is 20.5 inches, the radius is 10.25 inches. Solution: $C = 2 \times \pi \times r$ $C =$ _____ $C =$ _____ Partial Answer: The circumference of the base of the water heater is …
Step 2:	Determine the lateral area (LA) of the water heater. Given: The length and width of the lateral face measure 64.37 inches and 50 inches, respectively. Solution: LA = L × W LA = _____ LA = _____ Answer: The lateral area of the water heater is …
Step 3:	State the answer in a complete sentence. ≫ A total of _____ insulation material is needed to cover the side of the water heater.

B. Circle the letter that corresponds to the correct answer.

1. What is the surface area of the cylinder? (Use 3.14 for π.)

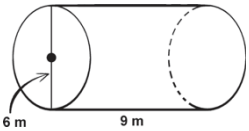


   a. 307.72 sq. cm
   b. 439.60 sq. cm
   c. 747.32 sq. cm
   d. 1,538.6 sq. cm

2. A cylindrical-shaped can is 10 centimeters tall. If the diameter of the base of the can is 6 centimeters, what is the area of its curved surface? (Use 3.14 for π.)

   a. 18.84 sq. cm
   b. 28.26 sq. cm
   c. 188.4 sq. cm
   d. 244.92 sq. cm

3. What is the surface area of the cylinder? (Use 3.14 for π.)



   a. 266.08 sq. cm
   b. 254.34 sq. cm
   c. 452.16 sq. cm
   d. 1,017.36 sq. cm

4. A cylindrical-shaped can is 6 centimeters tall. If the diameter of the base of the can is 10 centimeters, what is the area of its curved surface? (Use 3.14 for π.)

   a. 188.4 sq. cm
   b. 345.5 sq. cm
   c. 376.8 sq. cm
   d. 1,004.8 sq. cm