Name _____ Date _____ Class _____

Problem Solving
Volume of Prisms and Cylinders

Round to the nearest tenth. Write the correct answer.

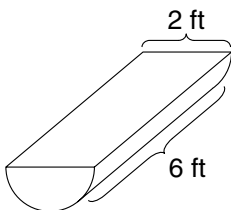**1.** A contractor pours a sidewalk that is 4 inches deep, 1 yard wide, and 20 yards long. How many cubic yards of concrete will be needed? (Hint: 36 inches = 1 yard.)

2. A refrigerator has inside measurements of 50 cm by 118 cm by 44 cm. What is the capacity of the refrigerator?

_____

A rectangular box is 2 inches high, 3.5 inches wide and 4 inches long. A cylindrical box is 3.5 inches high and has a diameter of 3.2 inches. Use 3.14 for π. Round to the nearest tenth.

3. Which box has a larger volume?

4. How much bigger is the larger box?

_____

Use 3.14 for π. Choose the letter for the best answer.

5. A child's wading pool has a diameter of 5 feet and a height of 1 foot. How much water would it take to fill the pool? Round to the nearest gallon. (Hint: 1 cubic foot of water is approximately 7.5 gallons.)

A 79 gallons

B 589 gallons

C 59 gallons

D 147 gallons

6. How many cubic feet of air are in a room that is 15 feet long, 10 feet wide and 8 feet high?

F 33 ft^3

G 1200 ft^3

H 1500 ft^3

J 3768 ft^3

7. How many gallons of water will the water trough hold? Round to the nearest gallon. (Hint: 1 cubic foot of water is approximately 7.5 gallons.)

2 ft

6 ft

A 19 gallons   **C** 141 gallons

B 71 gallons   **D** 565 gallons

8. A can has diameter of 9.8 cm and is 13.2 cm tall. What is the capacity of the can? Round to the nearest tenth.

F 203.1 cm^3

G 995.2 cm^3

H 3980.7 cm^3

J 959.2 cm^3

Holt Pre-Algebra