P8 - Review Package 3

Multiple Choice
Identify the choice that best completes the statement or answers the question.

_____ 1. What is the perimeter of a square garden with a side length of 3.2 m?

a. 12.8 m
b. 9.2 m
c. 10.2 m
d. 6.4 m

_____ 2. What is the perimeter of a rectangular room that has a length of 5.1 m and a width that is 2 m less than the length?

a. 24.4 m
b. 15.4 m
c. 16.4 m
d. 20.4 m

_____ 3. Convert 4.8 miles into feet.

a. 304 128 feet
b. 2816 feet
c. 25 344 feet
d. 8448 feet

_____ 4. Convert 2.6 miles into feet.

a. 1525 feet
b. 13 728 feet
c. 164 736 feet
d. 4576 feet

_____ 5. Convert 64 041 inches into miles. Round to 1 decimal place.

a. 1.2 miles
b. 0.8 miles
c. 1.0 miles
d. 3.0 miles

_____ 6. Which of the following are the most appropriate SI units to use for measuring a person's height?

a. centimetres
b. millimetres
c. feet
d. inches

_____ 7. If 17 km is equal to 10.56 miles, how many kilometres are in a mile? Round to 1 decimal place.

a. 0.6 km
b. 1.6 km
c. 6.4 km
d. 2.1 km

_____ 8. A carpenter measures the perimeter of a room to be $56'9\frac{13}{16}$ ". He needs to buy baseboard to finish the room but the store only sells it by the full metre. How many metres of baseboard will he need to buy?

a. 2 m
b. 174 m
c. 18 m
d. 1732 m

_____ 9. A 4" by 6" photograph is in a frame $\frac{3}{4}$ " wide. What is the outer perimeter of the framed photograph?

    a.   26"
    b.   13"

    c.   22"
    d.   41"

_____ 10. The driving distance from Yellowknife, NWT, to Whitehorse, YT, is 2704 km. What is this distance in miles?

    a.   1352 miles
    b.   1690 miles

    c.   4326 miles
    d.   901 miles

_____ 11. Surface area is measured in which type of units?

    a.   zero units
    b.   square units

    c.   linear units
    d.   cube units

_____ 12. What is the surface area of a cube that measures 16" on each side?

    a.   2048 in^2
    b.   1536 in^2

    c.   1024 in^2
    d.   256 in^2

_____ 13. An aluminum pop can measures 11 cm high and has a radius of 3 cm. What is the surface area of the exposed can, to 2 decimal places?
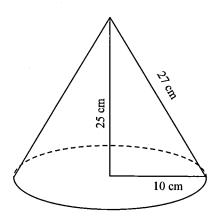
    a.   28.27 cm
    b.   367.57 cm

    c.   263.89 cm
    d.   226.19 cm

_____ 14. Find the surface area of this cone. Include the surface area of the base of the cone. Round to 1 decimal place.

    a.   21519.9 cm^2
    b.   879.6 cm^2

    c.   1162.4 cm^2
    d.   1099.6 cm^2

____ 15. What is the surface area of a box with no lid that is 75 cm long, 0.4 m wide, and 200 mm high?

   a. 7600 cm²   c. 30 220 cm²
   b. 10 600 cm²   d. 5700 cm²

____ 16. A square-based pyramid has a base length of 10 feet, a height of 45 inches, and a slant length of 3 yards. What is the surface area, including the base?

   a. 175 ft²   c. 280 ft²
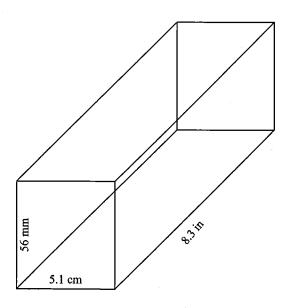   b. 337.5 ft²   d. 200 ft²

____ 17. How many mL are in 1 cup?

   a. 100 mL   c. 300 mL
   b. 250 mL   d. 500 mL

____ 18. Find the volume of the rectangular prism below, in in³.

   a. 36.5 in³   c. 234.7 in³
   b. 143.6 in³   d. 39.3 in³

____ 19. How many pints are in 13.9 quarts?

   a. 29.8 pints   c. 55.6 pints
   b. 7.0 pints   d. 27.8 pints

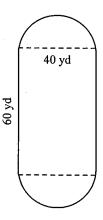_____ 20. A cube has a volume of 1 cubic foot. What is its volume in cubic inches?

a.	144 cu in	c.	1728 cu in
b.	1827 cu in	d.	168 cu in

Short Answer

1. Find the distance Lori runs if she completes 9 laps of this track.

40 yd

60 yd

2. Michael has been training to run a 4-minute mile. He manages to run 1700 m in 4 minutes. Did he succeed?

3. Charlie drove for 3 hours at 80 km/h.

   a) How far did he travel in kilometres?

   b) How far did he travel in miles? Calculate the distance to the nearest mile.

4. The circumference of a circular fountain is 30 inches.
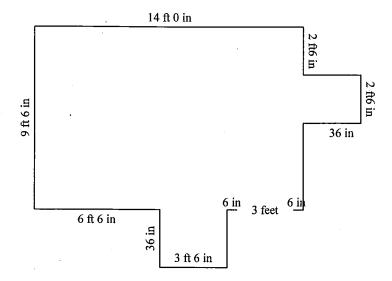
   a) What is the circumference in centimetres, to one decimal place?

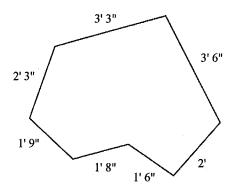   b) What is the radius of the fountain in centimetres, to one decimal place?

5. A garden measures 14 yd by 10 yd. In order to grow well, vegetables need about 0.8 m² of space each. How many plants can you expect to grow in the garden?

Problem

1. a) Calculate the amount of baseboard that will be needed to finish the room below.

    b) If you can buy baseboard only in whole feet, how much will it cost for the room if baseboard costs $1.64/foot?

2. What is the perimeter of this figure?

3. A room measures 12'8" by 11'3". Carpet costs $30.49/m². If you must purchase 5% extra carpet to account for mistakes and waste, what will it cost to carpet the room?

4. A garden measuring 7 m by 6 m is to be covered in 15 cm of topsoil. Bags of topsoil cost $7.99 per bag and hold 5 ft³ of topsoil. How much will the topsoil for this garden cost?

5. What holds more, a 1.5-L bottle of pop or 6, 8-fl oz cans of pop? (Hint: 1 fl oz = 30 mL.)