



2.4.2 Checkup: Practice Problems

Algebra 1 Sem 1

Checkup

Name: _____

Date: _____

Answer the following questions using what you've learned from this lesson. Write your responses in the space provided.

1. Four thermometers measure the temperature of a freezing pond. Circle the temperature that is the most accurate. (Hint: Water freezes at 32°F).

34°F 33.5°F **31.5°F** 34.587°F

2. Fill in the blanks: A digital thermometer measures the temperature of a freezing pond as 34.587°F. This thermometer is precise but not accurate.

3. An odometer measures the mileage of a car to 1/10, or 0.1, of a mile. Circle the measurement that shows an appropriate level of precision for this odometer.

Between 60 and 70 miles 65 miles **65.8 miles** 65.792 miles

4. Which unit of measure would be appropriate for the volume of a cube with sides of 2 meters?
cubic meters or meters³

For questions 5 – 10, perform the conversion. If necessary, round to the nearest hundredth.

Calculation Tip: When converting from one unit to another, put the new unit in the numerator of your ratio.

5. Convert 2.6 miles into yards.
Hint: 1760 yards = 1 mile

6. Convert 6.75 yards into inches.
Hint: 3 feet = 1 yard; 12 inches = 1 foot

$$2.6 \text{ miles} \cdot \frac{1760 \text{ yards}}{1 \text{ mile}} = \boxed{4576 \text{ yards}}$$

1 mile 

$$6.75 \text{ yards} \cdot \frac{3 \text{ feet}}{1 \text{ yard}} \cdot \frac{12 \text{ inches}}{1 \text{ foot}} = \boxed{243 \text{ inches}}$$

7. Convert 1.55 feet into centimeters.
Hint: 1 in = 2.54 cm

$$1.55 \text{ ft} \cdot \frac{12 \text{ in}}{1 \text{ ft}} \cdot \frac{2.54 \text{ cm}}{1 \text{ in}} = \boxed{47.24 \text{ cm}}$$

8. Convert 77 centimeters into feet.
Hint: 1 in = 2.54 cm; 1 ft = 12 in

$$77 \text{ cm} \cdot \frac{1 \text{ in}}{2.54 \text{ cm}} \cdot \frac{1 \text{ ft}}{12 \text{ in}} = \boxed{2.53 \text{ ft}}$$

9. Convert 10,000 seconds into hours.

$$10,000 \text{ seconds} \cdot \frac{1 \text{ minute}}{60 \text{ seconds}} \cdot \frac{1 \text{ hour}}{60 \text{ minutes}} \approx \boxed{2.78 \text{ hours}}$$

10. Convert 45 miles per hour into kilometers per minute.
Hint: 1 mile \approx 1.6 km

$$\frac{45 \text{ miles}}{1 \text{ hour}} \cdot \frac{1.6 \text{ km}}{1 \text{ mile}} = \frac{72 \text{ km}}{\text{hour}}$$

$$\frac{72 \text{ km}}{\text{hour}} \cdot \frac{1 \text{ hour}}{60 \text{ minutes}} = \frac{1.2 \text{ km}}{\text{min}} = \boxed{1.2 \text{ km per min}}$$