## Standardized Test

Name \_ Date \_

- **1.** Dory lives 2.5 miles from school. Jim lives 3.2 kilometers from school. Ely lives 2300 meters from school, and Chris lives 3000 yards from school. Which lists the students from closest to farthest from school? (1 mi = 1.61 km; 1 m = 1.09 yd; 1 km = 1000 m
  - a. Ely, Dory, Chris, Jim
  - **b.** Dory, Jim, Chris, Ely
  - c. Chris, Jim, Ely, Dory
  - **d.** Ely, Chris, Jim, Dory
- **3.** A humpback whale can eat up to 1.5 tons of food each day. What is this amount of food in kilograms? (1 T = 900 kg)
  - **a.** 1350 kg
  - **b.** 3000 kg
  - **c.** 4400 kg
  - **d.** 6600 kg
- **5.** How many kilograms are in 1.2 grams? (1 kg = 1000 g)
  - **a.** 0.0012 kg
  - **b.** 0.012 kg
  - **c.** 1200 kg
  - **d.** 12,000 kg

- 2. To raise awareness for the environment, Amy wants to braid a 0.5-kilometer strand using plastic bottle strips. How many centimeters is 0.5 kilometer? (1 km = 100,000 cm)
  - **a.** 500 cm
  - **b.** 5000 cm
  - **c.** 50,000 cm
  - **d.** 500,000 cm
- **4.** The height of a tree is 12 meters. What is the height of the tree in feet? (1 m = 3.28 ft)
  - **a.** 13.08 ft
  - **b.** 39.36 ft
  - **c.** 48.00 ft
  - **d.** 472.44 ft
- 6. Bob is having a cookout. He bought 6 liters of seltzer water. How many full 1-pint servings of seltzer can he pour? (1 L = 2.11 pt)
  - **a.** 6

**c.** 18

**b.** 12

**d.** 21

- 7. The frigate bird has a top recorded speed of 153 kilometers per hour. How would you state this speed in the appropriate customary unit? (1 km = 0.62 mi)
  - a. 94.86 miles per hour
  - b. 110.16 miles per hour
  - c. 166.77 miles per hour
  - d. 246.33 miles per hour
- **9.** A fountain holds 12,500 gallons of water. Joe wants to find how many liters that is. Which proportion could he use to solve for the number of liters? (1 L = 0.26 gal)

**a.** 
$$\frac{1 \text{ L}}{0.26 \text{ gal}} = \frac{12,500 \text{ gal}}{x \text{ L}}$$

**b.** 
$$\frac{0.26 \text{ gal}}{1 \text{ L}} = \frac{1 \text{ gal}}{12,500 \text{ L}}$$

**c.** 
$$\frac{3.79 \text{ L}}{1 \text{ gal}} = \frac{12,500 \text{ gal}}{x \text{ L}}$$

**d.** 
$$\frac{1 \text{ gal}}{3.79 \text{ L}} = \frac{12,500 \text{ gal}}{x \text{ L}}$$

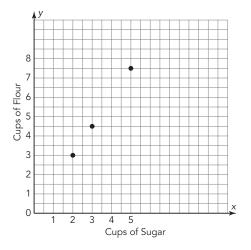
- **8.** Indigo measures a 2-ounce sample for an experiment. How many grams are in 2 ounces? (1 oz = 28.35 g)
  - **a.** 0.07 g
  - **b.** 0.90 g
  - **c.** 4.40 g
  - **d.** 56.70 g
- **10.** Ling earns \$108 for working 9 hours. Rachel earns \$77 for working 7 hours. Ruben earns \$92 for working 8 hours. Patrick earns \$115 for working 10 hours. Who has the highest hourly wage?
  - a. Ling
  - **b.** Rachel
  - c. Ruben
  - d. Patrick
- 11. Bill's favorite breakfast cereal is available in four different sizes. Which is the best buy?
  - **a.** 15-ounce box for \$4.20
  - **b.** 10-ounce box for \$3.10
  - **c.** 22-ounce box for \$5.72
  - **d.** 18-ounce box for \$4.50

**12.** The graph represents the number of cups of flour for the number of cups of sugar in a cake recipe. Use the graph to determine the unit rate for the cups of flour to the cups of sugar.



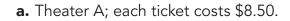
**b.** 3 cups of sugar : 
$$4\frac{1}{2}$$
 cups of flour

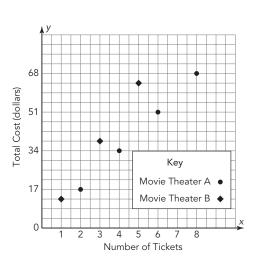
**d.** 1 cup of sugar : 
$$1\frac{1}{2}$$
 cups of flour



**13.** Tyler can swim 5 laps of the school pool in 3 minutes, Jose can swim 6 laps in 4 minutes, and Kevin can swim 4 laps in 2 minutes. Who is the fastest swimmer?

**14.** The graph shows the ratio number of tickets: total cost for two movie theaters. Use the graph to determine which movie theater has a higher ticket price and the unit price for the theater.





## **UNIT RATES AND CONVERSIONS**

- **15.** If a store sells 60 square feet of hardwood flooring for \$345, what is the unit price?
  - a. \$345 per 60 square feet
  - **b.** \$57.50 per 10 square feet
  - c. \$6.00 per square foot
  - d. \$5.75 per square foot

- **16.** A recipe uses 2 tablespoons of sugar and  $\frac{1}{2}$  teaspoon of vanilla. Which two unit rates can be used for this relationship?
  - **a.** 2 tablespoons of sugar :  $\frac{1}{2}$  teaspoon of vanilla
  - **b.** 1 tablespoon of sugar :  $\frac{1}{4}$  teaspoon of
  - **c.**  $\frac{1}{2}$  teaspoon of vanilla : 2 tablespoons
  - **d.**  $\frac{1}{4}$  teaspoon of vanilla : 1 tablespoon of sugar
- **17.** The length of two decals printed end-toend is 30 centimeters long. Gary wants to print more decals together end-to-end. How many can he fit in 72 centimeters? What is the unit rate in decal: length? Select all that apply.
  - a. 4 decals
  - **b.** 5 decals
  - c. 2 decals: 30 centimeters
  - d. 1 decal: 15 centimeters

- 18. Viana has two aquariums. The small aquarium holds 5 gallons of water and the large aquarium holds 8 gallons of water. She knows that there are 24 pints in 3 gallons. Find the unit rate of pints: gallons, then determine the number of pints she'll need to fill both aquariums.
  - a. 8 pints: 1 gallon
  - **b.** 8 gallons : 1 pint
  - c. 104 pints total
  - d. 192 pints total

- **19.** Evelyn jogs 4.5 miles in 54 minutes. How many miles can she jog in 1 hour? What is the unit rate in feet: minutes if there are 5280 feet in a mile?
  - a. 5 miles in 1 hour
  - **b.** 5.5 miles in 1 hour

c. 26,400 feet: 60 minutes

**d.** 26,400 feet : 54 minutes

20. The perimeter of Cal's room is 576 inches. What proportion can he use to convert the perimeter to yards? How many yards is the perimeter of Cal's room?

(36 inches = 1 yard)

**a.** 
$$\frac{576 \text{ inches}}{x \text{ yards}} = \frac{1 \text{ yard}}{36 \text{ inches}}$$

**b.** 
$$\frac{576 \text{ inches}}{x \text{ yards}} = \frac{36 \text{ inches}}{1 \text{ yard}}$$

- c. Perimeter is 16 yards
- **d.** Perimeter is 46 yards