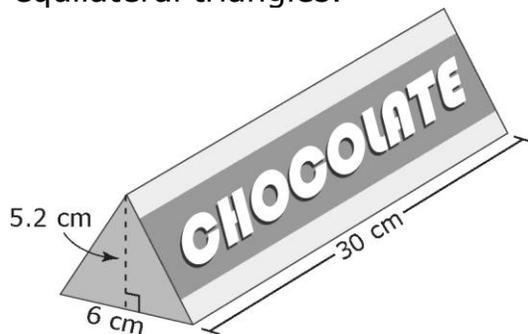# Chapter 2 Warm-Up

Section 2.1

1. Describe three things in nature that have symmetry.

2. Draw a figure that has a horizontal and a vertical line of symmetry.

3. This figure has rotation symmetry. Determine the order of rotation and the angle of rotation.

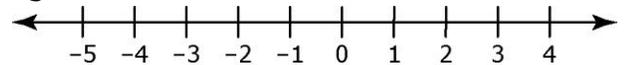**4.** Find the surface area of the chocolate bar. The ends are equilateral triangles.

5. Draw the side, top, and front views of this 3-D figure.
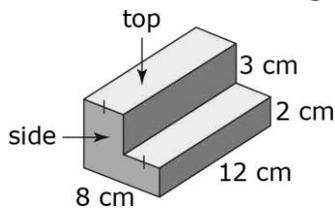
Mental Math

6. Rewrite 0.18 as a fraction in lowest terms.

7. Rewrite $\frac{5}{9}$ in decimal form.

8. Write three equivalent fractions for $\frac{4}{5}$.

9. Copy the number line and place $1\frac{2}{5}$ and −3.7 on it.

10. Explain why −8 is smaller than −5.

Section 2.2

1. Is there rotation symmetry in the maple leaf? Explain your answer.

2. The area of your fingertip is approximately 1 cm². If you place your fingertip on a tabletop, how much surface area are you covering: 1 cm² or 2 cm²? Explain your answer.

3. Which is larger: -3.7 or $-3\frac{3}{4}$?

4. Which integers are between $-\frac{12}{5}$ and $\frac{17}{3}$?

5. Name a rational number between $\frac{2}{3}$ and $\frac{4}{5}$.

Section 2.3

1. Which is smaller: $-2\frac{5}{7}$ or $-2\frac{3}{5}$?

2. Determine a rational number that has a denominator of 4 and lies between −2.5 and −3.

3. Estimate the answer to $-2.8[1.7 - (-2.1)]$.

4. Evaluate $-4.36 + 1.2[2.8 + (-3.5)]$. Show each step of your work.

5. The following temperature readings in degrees Celsius are collected over a five-week period: −5, +3, −11, +2, 0. What is the average temperature?

Mental Math

6. Add: $-7 + -11$

7. Subtract: $(-5) - (-8)$

8. Multiply: $(-10)(-12)$

9. Divide: $24 \div (-3)$

10. Find the average of −8, −12, 6, −4, and 20.

Mental Math

6. Add: $\frac{5}{6} + \frac{1}{3}$

7. Subtract: $2\frac{1}{4} - \frac{7}{4}$

8. Multiply: $\frac{4}{6} \times \frac{2}{5}$

9. Divide: $3 \div \frac{2}{5}$

10. You need to sell 36 raffle tickets for a fundraiser. The first week you sell $\frac{2}{3}$ of them, and the second week you sell $\frac{1}{2}$ of the raffle tickets left over from the first week. How many tickets do you have left to sell?

Section 2.4

1. What are $-\dfrac{21}{8}$ and $-2\dfrac{2}{3}$ in decimal form? What is the value of a rational number between these two numbers?

2. Evaluate:
   $8.2 \div (-0.8) - (-0.5)(-0.5)$

3. Evaluate: $-\dfrac{2}{3} - \left(-\dfrac{4}{5}\right)$

4. Rewrite the division statement as a multiplication statement. Then, determine the unknown number.

   $$\boxed{} \div \left(-\dfrac{3}{5}\right) = 2\dfrac{1}{2}$$

5. Evaluate: $\dfrac{1}{3}\left(\dfrac{2}{5} - \dfrac{1}{2}\right) + \dfrac{3}{10}$

Mental Math

6. List the next five perfect squares: 1, 4, 9, ...

7. Evaluate: $\sqrt{100}$

8. Evaluate: 0.2×0.2

9. Estimate the product of 3.9 and 3.9.

10. Find the area of a square with each side length measuring 5 cm.