# Lesson 2.1-2.2 Check Up

Name: _____

1. Identify and circle the rational numbers:

$17$ $-3.606$ $\sqrt{3}$ $-8\frac{3}{4}$

2. Compare $-\frac{3}{4}, 1.7, -0.6, 1\frac{1}{2}, -0.\overline{6}$. Write the numbers in ascending order.

3. Identify the smaller value in each pair:

a. $-\frac{1}{2}$, $\frac{3}{4}$ b. $\frac{7}{8}$, $\frac{8}{9}$ c. $-\frac{3}{7}$, $-\frac{4}{7}$

4. For each of the following pairs of rational numbers, **(i)** write the rational numbers in decimal form, and **(ii)** identify a decimal number between the pair of numbers.

a. $\frac{1}{2}$, $\frac{1}{4}$ b. $-\frac{1}{10}$, $-\frac{1}{8}$

5. For each of the following pairs of rational numbers, **(i)** write the rational numbers in fraction form, and **(ii)** identify a fraction between the pair of fractions.

a. 0.8, 0.9 b. -0.9, -1

6. Which integers are between 16/3 and -9/2?

7. For the following questions, **(i)** estimate, and **(ii)** calculate the answer (express to the nearest thousandth if required):
   a. 0.56 + (-3.14)
      Estimate: Calculate:

   b. -6.92 + (-8.02)
      Estimate: Calculate:

   c. -4.2 x 6.5
      Estimate: Calculate:

   d. -1.68 ÷ (-1.4)
      Estimate: Calculate:

8. Calculate $-6.2 + (-0.72) \div (-1.3 + 0.4)$

9. As a fundraiser, the student council ordered 130 birthday cars, with a picture of the school's logo. The cards cost the student council $1.45 each. They sold 126 cards for $2.00 each. How much profit did the student council make on their birthday card sale? *Write an expression using rational numbers to represent the problem, then calculate.*

# Lesson 2.3-2.4 Check Up

Name: _____

1. For the following questions, estimate, then calculate.

a. $\frac{3}{10} - \left(-\frac{2}{5}\right)$

Estimate:

Calculate:

b. $-\frac{3}{4} + \frac{1}{2}$

Estimate:

Calculate:

c. $-\frac{1}{4} + \left(-2\frac{1}{3}\right)$

Estimate:

Calculate:

d. $-\frac{2}{3} \times \left(-\frac{3}{8}\right)$

Estimate:

Calculate:

d. $-\frac{3}{4} \div \left(-\frac{2}{5}\right)$

Estimate:

Calculate:

e. $\frac{1}{6} \div \left(-\frac{5}{12}\right)$

Estimate:

Calculate:

2. The Rodriquez family has a monthly income of $6000. They budget $\frac{1}{3}$ for food, $\frac{1}{4}$ for rent, $\frac{1}{5}$ for clothing, and $\frac{1}{10}$ for savings. How much money is left for other expenses?

3. For each of the following, **(i)** estimate, then **(ii)** calculate.

a. $\sqrt{14.4}$

(i) $\sqrt{9} =$

$\sqrt{16} =$

$\sqrt{14.4} \approx$

(ii) $\sqrt{14.4} =$

b. $\sqrt{132}$

(i) $\sqrt{121} =$

$\sqrt{144} =$

$\sqrt{132} \approx$

(ii) $\sqrt{132} =$

4. Determine whether each square rational number is a perfect square. If it is a perfect square, write the product as an expression of two equal rational factors.

a. $0.9$ YES NO _____

b. $\frac{1}{10}$ YES NO _____

c. $\frac{1}{4}$ YES NO _____

d. $1.44$ YES NO _____

5. Evaluate. Show your work.

a. $\sqrt{256}$

b. $\sqrt{1225}$

6. Calculate the side length of each square from its area. Show your work.

a. 1.21 $cm^2$

b. 0.36 $km^2$

7. A square lot has an area of 0.5 ha. What are the lot's dimensions to the nearest metre? Show your work. (Hint: 1 ha = 10 000 $m^2$)