

Chapter 2 Practice Test

For #1 to #7, select the best answer.

- Which fraction does not equal $\frac{4}{-6}$?
A $-\left(\frac{-10}{15}\right)$ B $-\frac{8}{12}$
C $\frac{6}{-9}$ D $-\left(\frac{-2}{-3}\right)$
- Which value is greater than $-1\frac{5}{6}$?
A $-1.\bar{8}$ B $-1\frac{7}{8}$
C $-1.8\bar{3}$ D $-1\frac{4}{5}$
- Which fraction is between -0.34 and -0.36 ?
A $\frac{17}{50}$ B $-\frac{9}{25}$
C $-\frac{7}{20}$ D $\frac{35}{100}$
- Which value equals $-3.78 - (-2.95)$?
A -6.73 B -0.83
C 0.83 D 6.73
- Which expression does not equal $\frac{3}{5} \times \left(-\frac{6}{7}\right)$?
A $-\frac{3}{7} \times \frac{6}{5}$ B $\frac{3}{-5} \times \frac{6}{7}$
C $\frac{-3}{5} \times \left(\frac{-6}{-7}\right)$ D $\frac{-3}{-5} \times \frac{6}{7}$
- Which value is the best estimate for $\sqrt{1.6}$?
A 2.6 B 1.3
C 0.8 D 0.4
- Which rational number is a non-perfect square?
A $\frac{1}{25}$ B 0.16
C 0.9 D $\frac{121}{4}$

Complete the statements in #8 and #9.

- A square has an area of 1.44 m^2 . The perimeter of the square is \blacksquare m.
- On a number line, you would find $-3\frac{5}{11}$ to the \blacksquare of -3.4545 .

Short Answer

- Explain why any integer is a rational number.
- Arrange the following in descending order.
 $-1.\bar{2}$ -1.2 $\frac{19}{20}$ $\frac{9}{10}$ $\frac{9}{-10}$ 0.94
- Identify the fractions in lowest terms that are between -2 and -3 and that have 6 as the denominator.
- Calculate.
a) $1\frac{4}{5} - 2\frac{2}{3}$ b) $-3.21 + 1.84$
c) $\frac{5}{8} \div \left(-\frac{11}{12}\right)$ d) $-2\frac{5}{7} \left(-3\frac{1}{2}\right)$
e) $-3.66 \div (-1.5)$ f) $-\frac{5}{6} + \left(-\frac{1}{12}\right)$
- Canada's Donovan Bailey won the gold medal in the 100-m sprint at the Summer Olympics in Atlanta in a time of 9.84 s. He beat the second-place finisher, Frankie Fredericks of Namibia, by $\frac{5}{100}$ of a second.

What was Fredericks's time?



15. What is the average of a rational number and its opposite? Explain using examples in decimal or fraction form.

16. Is 31.36 a perfect square? Explain how you know.

17. Determine.

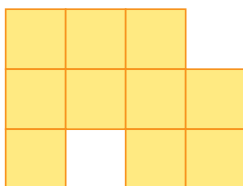
a) the number with a square root of 6.1

b) $\sqrt{0.1369}$

c) $\sqrt{7}$, to the nearest hundredth

Extended Response

18. This shape is made from ten congruent squares.



a) If the perimeter of the shape is 40 cm, what is its area?

b) If the area of the shape is 75 cm², what is its perimeter, to the nearest tenth of a centimetre?

19. Ron buys 75 shares in a car company. A year later, he sells the shares for \$15.64 each. The result is a loss of \$260.25. How much did Ron pay for each share? State any assumptions you make.

20. A Canadian quarter is made from nickel, copper, and steel. The quarter is $\frac{11}{500}$ nickel, $\frac{19}{500}$ copper, and $\frac{47}{50}$ steel.

a) Predict the sum of the three fractions. Justify your prediction.

b) Test your prediction by calculating the sum of the three fractions.

c) How many times as great is the mass of the steel as the combined mass of the nickel and the copper?

d) The mass of a Canadian quarter is 4.4 g. In a roll of 40 quarters, how much greater is the mass of copper than the mass of nickel?

Math Link: Wrap It Up!

Design a game that can be played with a partner or in a small group.

The game must include

- calculations that involve at least two operations and both positive and negative rational numbers
- dice, coins, playing cards, or other materials to generate numbers

a) Describe the rules of the game, including how the winner is decided.

b) Give examples of the calculations that the game involves.

c) Play the game with a partner or in a small group.

d) Suggest alternative rules for the game. For example, you might suggest modifications to the game, such as including different operations.

