

What Should I Be Able to Do?

LESSON

3.1

- 1.** Write each fraction as a decimal. Identify each decimal as terminating or repeating.

a) $\frac{3}{5}$ b) $\frac{5}{6}$ c) $\frac{3}{8}$ d) $\frac{3}{20}$

- 2.** Write each decimal as a fraction or a mixed number in simplest form.

a) 0.55 b) $1.\overline{3}$
c) 0.8 d) $0.\overline{07}$

3.2

- 3.** a) Use any method. Order these numbers from least to greatest. Explain the method you used.

$\frac{5}{4}$, $1\frac{1}{16}$, $\frac{3}{6}$, 1.1 , $\frac{5}{8}$

- b) Use a different method to order the numbers, to verify your answer in part a.

- 4.** In each ordered set, identify the number that has been placed incorrectly. Explain how you know.

a) $2\frac{1}{3}$, 2.25, $\frac{17}{6}$, $2\frac{11}{12}$

b) $\frac{3}{5}$, $\frac{9}{10}$, $\frac{21}{20}$, $1\frac{3}{15}$, 1.1

3.3

- 5.** Two decimals have a sum of 3.41. What might the decimals be? Find as many answers as you can.

- 6.** Asafa Powell of Jamaica holds the men's world record for the 100-m sprint, with a time of 9.77 s. Florence Griffith Joyner of the United States holds the women's world record, with a time of 10.49 s. What is the difference in their times?

3.4

- 7.** Kiah works at the library after school. She earns \$7.65/h. She usually works 15.5 h a week.

- a) What does Kiah earn in a week?

Use estimation to check your answer.

- b) One week Kiah only works one-half the hours she usually works. What are her earnings that week?



- 8.** Lok needs 1.2 m of fabric to make a tote bag. He finds two fabrics he likes. One fabric costs \$7.59/m and the other fabric costs \$6.29/m. How much money will Lok save if he buys the less expensive fabric?

3.5

- 9.** Estimate.

Which quotients are:

i) greater than 100?

ii) less than 50?

Calculate the quotients that are less than 50.

a) $259.8 \div 1.65$

b) $35.2 \div 0.2$

c) $175.08 \div 0.8$

d) $93.8 \div 22.4$

e) $162.24 \div 31.2$

f) $883.3 \div 36.5$

LESSON

- 10.** The area of a rectangle is 3.75 m^2 . Its length is 0.6 m . What is the width of the rectangle?

3.6 11. Evaluate.



Use the order of operations.

- a) $8.11 + 6.75 \times 5.6 - 2.12$
b) $3.78 \times 2.25 - 4.028 \div 1.52$

12. a) Simplify.

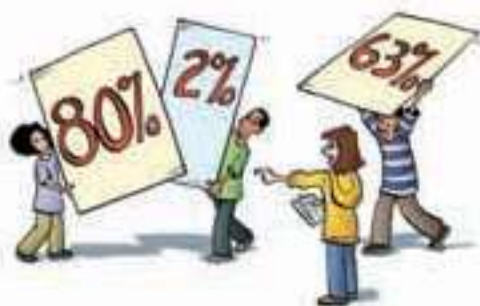
- i) $1.2 + 2.8 \times 2.1 + 3.6$
ii) $1.2 \times 2.8 + 2.1 \times 3.6$
iii) $1.2 \times (2.8 + 2.1) + 3.6$
iv) $1.2 + 2.8 + 2.1 \times 3.6$

- b) All the expressions in part a have the same numbers and operations. Why are the answers different?

3.7 13. Write each percent as a fraction and as a decimal.

Sketch number lines to illustrate.

- a) 80% b) 12%
c) 2% d) 63%



14. Write each fraction as a decimal and as a percent.

Sketch number lines to illustrate.

- a) $\frac{14}{25}$ b) $\frac{19}{20}$
c) $\frac{7}{50}$ d) $\frac{1}{5}$

- 3.8 15.** There are 35 students in a Grade 7 class. On one day, 20% of the students were at a sports meet. How many students were in class?

16. Find the sale price before taxes of each item.

- a) video game: 15% off \$39
b) lacrosse stick: 25% off \$29
c) fishing rod: 30% off \$45

17. A souvenir Olympic hat sells for \$29.99.

- a) Russell lives in Newfoundland where there is a sales tax of 14%. Calculate the final cost of the hat in Newfoundland.
b) Jenna lives in Alberta where the GST tax is 6%. Calculate the final cost of the hat in Alberta.
c) What is the difference between the final costs of the hat in Newfoundland and Alberta?

- 18.** Madeleine received good service in a restaurant. She left the waitress a tip of 20%. Madeleine's bill was \$32.75. How much tip did the waitress receive? Show your work. Draw a number line to illustrate your answer.



Practice Test

1. Write each decimal as a fraction in simplest form and each fraction as a decimal.
a) 0.004 b) 0.64 c) $0.\overline{3}$ d) $\frac{51}{200}$ e) $\frac{3}{4}$
2. Ryan earns \$18.00 a day walking dogs.
He walked dogs 5 days last week.
a) How much money did Ryan earn last week?
Ryan is saving to buy inline skating equipment.
The skates cost \$59.95.
A helmet costs \$22.90.
A set of elbow, knee, and wrist guards costs \$24.95.
b) Does Ryan have enough money to buy the equipment?
Show your work.
c) If your answer to part b is no, how much more money does Ryan need?
What assumptions did you make?
3. Maria stated that $1\frac{5}{6}$ is between 1.8 and $\frac{13}{7}$.
Do you agree?
Give reasons for your answer.
4. Evaluate.
a) $3.8 + 5.1 \times 6.4 - 1.7$
b) $3.54 \div 0.3 + (2.58 \times 1.5)$
5. Last spring, 40 cats were adopted from the local animal shelter.
This spring, the number of cats adopted dropped by 35%.
How many cats were adopted this spring?
Draw a number line to show your answer.
6. The regular price of a pair of shoes is \$78.00.
The shoes are on sale for 25% off.
a) What is the sale price of the shoes?
b) How much money is saved by buying the shoes on sale?
c) The GST is 6%. How much GST would be added to the sale price?
d) What is the final price of the shoes?