

4.2 Fractions, Decimals, and Percents

MathLinks 7, pp. 132–139

Key Idea Review

Choose from the following terms to complete each statement. Then complete each example.

repeating terminating numerator denominator divide

1. $0.333\dots$ is a _____ decimal. It can also be written as _____.

2. 0.3 , 0.35 , and 0.359 are _____ decimals. Here they are as fractions:

$$0.3 = \frac{\boxed{}}{\boxed{}}$$

$$0.35 = \frac{\boxed{}}{\boxed{}}$$

$$0.359 = \frac{\boxed{}}{\boxed{}}$$

3. To change $\frac{2}{5}$ to a decimal number, _____ the numerator by the _____. $\frac{2}{5} = 0.\underline{\hspace{1cm}}$

Practice and Apply

4. Use a calculator to change each fraction to a decimal number. Round to the place value indicated.

a) $\frac{27}{50}$ (tenths) _____

b) $\frac{13}{82}$ (tenths) _____

c) $\frac{45}{112}$ (hundredths) _____

d) $\frac{204}{331}$ (hundredths) _____

e) $\frac{67}{85}$ (thousandths) _____

f) $\frac{452}{511}$ (thousandths) _____

5. Write each repeating decimal using bar notation.

a) $0.22222\dots$ _____

b) $0.010101\dots$ _____

c) $0.213213\dots$ _____

d) $2.434343\dots$ _____

6. Change each fraction to a repeating decimal. Then use bar notation to show the repeating part.

a) $\frac{1}{3} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

b) $\frac{5}{9} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

c) $\frac{9}{11} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

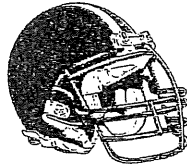
d) $\frac{7}{33} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

7. Estimate each of the following as a percent. Show your thinking.

a) 34 out of 90

b) 165 out of 400

8. Quarterbacks are compared according to their completion percentages.



$$\text{Completion percentage} = \frac{\text{Completed passes}}{\text{Attempts}}$$

Quarterback	Completed Passes	Attempts	Completion Percentage
A	231	329	
B	143	195	
C	298	401	

a) Fill in the last column by calculating the completion percentage for each quarterback. Round each answer to the nearest thousandth.

b) List the completion percentages in descending order.

_____ > _____ > _____

9. For each of the following statements, rewrite each percent or decimal as a fraction.

a) 23% of Canadians speak

French. $\frac{\boxed{}}{\boxed{}}$

b) North America is 0.17 of

the world's land mass. $\frac{\boxed{}}{\boxed{}}$



c) Kareem has a 0.559 field goal

average. $\frac{\boxed{}}{\boxed{}}$

10. At Rocky Mountain School, 212 students take the bus and 300 students use a different mode of transportation to get to school. Estimate the percent of students who take the bus to school. Show your thinking.

