NAME _____ DATE _____ PERIOD _____

10-5 Practice: Skills

Percents and Fractions

Write each percent as a fraction in simplest form.

1. 40%

2. 30%

3. 55%

4. 75%

5. 140%

6. 175%

7. 24%

8. 68%

9. 44%

10. 92%

11. 110%

12. 155%

13. 18%

14. 74%

15. 43%

Write each fraction as a percent.

16. $\frac{4}{5}$

17. $\frac{3}{20}$

18. $\frac{7}{10}$

19. $\frac{3}{5}$

20. $\frac{3}{2}$

21. $\frac{5}{4}$

22. $\frac{6}{5}$

23. $\frac{9}{20}$

24. $\frac{13}{20}$

25. $\frac{17}{20}$

26. $\frac{9}{5}$

27. $\frac{11}{10}$

28. $\frac{19}{20}$

29. $\frac{13}{10}$

30. $\frac{21}{100}$

NAME _____ DATE _____ PERIOD _____

10-6 Study Guide and Intervention

Percents and Decimals

To write a percent as a decimal, first rewrite the percent as a fraction with a denominator of 100. Then write the fraction as a decimal.

EXAMPLE 1 **Write 23% as a decimal.**

$23\% = \frac{23}{100}$ Rewrite the percent as a fraction with a denominator of 100.

$= 0.23$ Write the fraction as a decimal.

EXAMPLE 2 **Write 127% as a decimal.**

$127\% = \frac{127}{100}$ Rewrite the percent as a fraction with a denominator of 100.

$= 1.27$ Write the fraction as a decimal.

EXAMPLE 3 **Write 0.8% as a decimal.**

$0.8\% = \frac{0.8}{100}$ Rewrite the percent as a fraction with a denominator of 100.

$= \frac{0.8}{\cancel{100}_{10}} \times \frac{\cancel{10}^{1}}{10}$ Multiply by $\frac{10}{10}$ to eliminate the decimal in the numerator.

$= 0.008$ Write the fraction as a decimal.

To write a decimal as a percent, first write the decimal as a fraction with a denominator of 100. Then write the fraction as a percent.

EXAMPLE 4 **Write 0.441 as a percent.**

$0.441 = \frac{441}{1{,}000}$ Write the decimal as a fraction.

$= \frac{441 \div 10}{1{,}000 \div 10}$ Divide by 10 to get a denominator of 100.

$= \frac{44.1}{100}$ or 44.1% Write the fraction as a percent.

EXERCISES

Write each percent as a decimal.

1. 39%
2. 57%
3. 82%
4. 135%
5. 112%
6. 0.4%

Write each decimal as a percent.

7. 0.86
8. 0.36
9. 0.65
10. 0.2
11. 0.148
12. 0.217

NAME _____ DATE _____ PERIOD _____

10-6 Practice: Skills

Percents and Decimals

Write each percent as a decimal.

1. 5%

2. 8%

3. 37%

4. 12%

5. 29%

6. 54%

7. 48%

8. 79%

9. 0.1%

10. 0.6%

11. 0.2%

12. 0.5%

13. 123%

14. 102%

15. 135%

16. 310%

Write each decimal as a percent.

17. 0.3

18. 0.7

19. 0.19

20. 0.74

21. 0.66

22. 0.52

23. 0.21

24. 0.81

25. 0.13

26. 0.362

27. 0.528

28. 0.245

29. 0.194

30. 0.334

31. 0.426

32. 0.059

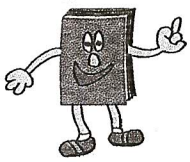
Lesson 10–6

EZSchool.com

Name: _____

Date: _____

Lesson: Fractions



Note: A fraction is a number that expresses part of a group.
Example: A roll of paper costs 80 cents. How much would it cost for $\frac{1}{4}$ roll?
Answer: Given 1 roll = 80 cents. To find the cost of $\frac{1}{4}$ roll, divide both sides by 4, i.e., $\frac{1}{4}$ roll = ($\frac{1}{4}$ x80) cents = 20 cents

Answer the following:

1) Billy took 3&2/3 hours to drive from New York to Washington. Sam took 4&1/2 hours for the same. How much longer did Sam take to drive than Billy?

2) John, Jacob, and Smith together mowed their lawn. If John mowed for 1/3 of an hour, Jacob for $\frac{1}{2}$ hour and Smith for $\frac{3}{4}$ of an hour then what was the total amount of time taken to mow the lawn?

3) The cost of a dozen gel pens is 4&1/3 dollars. How much would it cost for 3 dozens?

4) Penny is a sales person. She will get 4&1/2 dollars in commission for each item she sells. The company pays her when she her total commission is more than $50. How many items should she sell to get paid?

5) In a city, 1/6 of the people were 60 years or older, $\frac{1}{4}$ were under 18 years. If the total number of people in the city is 6000, then how many people were between 18 and 60 years?

Name_____ Skill: Finding Percentages

Change each fraction to a percentage.

1. $\frac{1}{2} =$ 2. $\frac{3}{4} =$ 3. $\frac{1}{5} =$ 4. $\frac{9}{10} =$ 5. $\frac{1}{4} =$

6. $\frac{9}{20} =$ 7. $\frac{6}{25} =$ 8. $\frac{2}{5} =$ 9. $\frac{1}{10} =$ 10. $\frac{4}{25} =$

Change each percentage to a fraction. Change to simplest form when possible.

11. 16% = 12. 5% = 13. 60% = 14. 70% = 15. 40% =

16. 55% = 17. 25% = 18. 35% = 19. 28% = 20. 14% =

21. 10% = 22. 33% = 23. 50% = 24. 75% = 25. 20% =

Name _____ Date _____

Unit 3: Percents—Computation

Percents and Decimals

To write a decimal for a percent, move the decimal point two places to the left. Omit the percent sign.
74% = .74. = 0.74

To write a percent for a decimal, move the decimal point two places to the right. Write the percent sign.
0.39 = 0.39.% = 39%

Write as decimals.

1. 85% _____
2. 3% _____
3. 16.2% _____
4. 155% _____
5. 17% _____
6. 50% _____
7. 2.9% _____
8. 57.1% _____
9. 167% _____

Write as percents.

10. 0.40 _____
11. 0.06 _____
12. 1.43 _____
13. 0.99 _____
14. 0.05 _____
15. 0.02 _____
16. 1.00 _____
17. 1.09 _____
18. 2.03 _____
19. 9.26 _____
20. 1.04 _____

Converting decimals to percents

Name _____

A Wacky Web

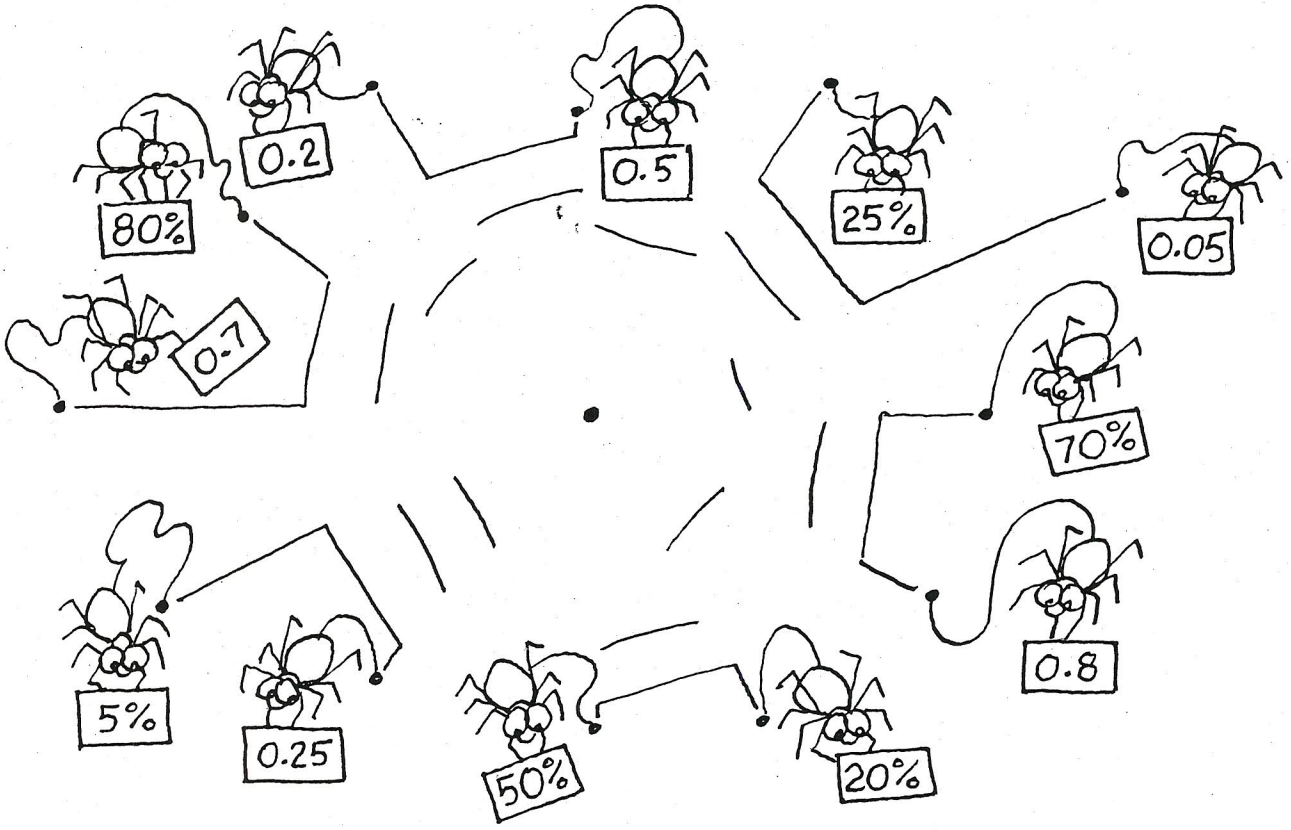
Convert each decimal to a percent.

A. 0.6 = _____ 0.1 = _____ 0.75 = _____ 0.9 = _____

B. 0.25 = _____ 0.06 = _____ 0.28 = _____ 0.15 = _____

C. 0.8 = _____ 0.5 = _____ 0.35 = _____ 0.4 = _____

Draw a straight line to each matching set of decimals and percents.



Converting fractions to decimals

Name _____

A Quick Change

Convert each fraction to a decimal.

A. $\frac{3}{6}$ = _____ $\frac{4}{10}$ = _____ $\frac{1}{10}$ = _____ $\frac{2}{20}$ = _____

B. $\frac{1}{5}$ = _____ $\frac{2}{8}$ = _____ $\frac{1}{20}$ = _____ $\frac{3}{4}$ = _____

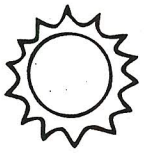
Convert each fraction to a decimal. Then, write the pattern on the line below.

C. $\frac{5}{10}$ = _____
$\frac{4}{8}$ = _____
$\frac{8}{16}$ = _____
_____

D. $\frac{1}{5}$ = _____
$\frac{2}{5}$ = _____
$\frac{3}{5}$ = _____
_____

E. $\frac{1}{4}$ = _____
$\frac{2}{4}$ = _____
$\frac{3}{4}$ = _____
_____

F. $\frac{8}{16}$ = _____
$\frac{4}{5}$ = _____
$\frac{2}{3}$ = _____
_____



$\frac{1}{8}$ = _____

$\frac{3}{8}$ = _____

$\frac{5}{8}$ = _____

$\frac{7}{8}$ = _____

_____

6.1

Convert these decimals to percents.

.225	.1875	.333	1.002
.012	.667	.997	.4467
.3275	.1275	.0062	2.327

Convert these percents to decimals.

14%	250%	90%
95%	9%	1750%
125%	.67%	.25%
.8%	10%	175%

Name _____ Date _____ Class _____

LESSON 7-8

Practice A

Percents, Decimals, and Fractions

Write each decimal as a percent.

1. 0.1 _____

2. 0.6 _____

3. 0.02 _____

4. 0.14 _____

5. 0.22 _____

6. 0.03 _____

7. 0.25 _____

8. 0.17 _____

9. 0.39 _____

10. 0.8 _____

11. 0.04 _____

12. 0.99 _____

Write each fraction as a percent.

13. $\frac{1}{2}$ _____

14. $\frac{1}{4}$ _____

15. $\frac{3}{4}$ _____

16. $\frac{7}{10}$ _____

17. $\frac{97}{100}$ _____

18. $\frac{33}{100}$ _____

19. Brett scored $\frac{1}{4}$ of all the baskets he shot during the basketball game. What percent did he make?

_____

20. Sarah has 3 dimes and 1 nickel. Jamie has 2 quarters. What percent of a dollar do they each have?

_____

21. Mike, Joey, and Kini are playing a shooting game at the fair. Mike made $\frac{3}{5}$ of his shots, Joey made $\frac{4}{5}$, and Kini made $\frac{2}{5}$. Write the percent each boy made.

_____

Equivalent Fractions 1

Simplify your answers wherever possible

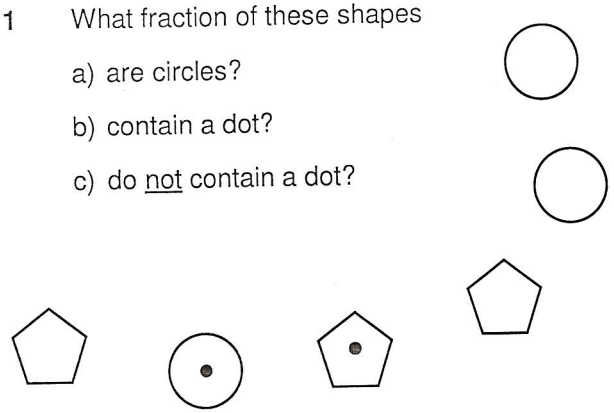
1 a) $\frac{3}{6} = \frac{1}{2}$

1 What fraction of these shapes

a) are circles?

b) contain a dot?

c) do not contain a dot?

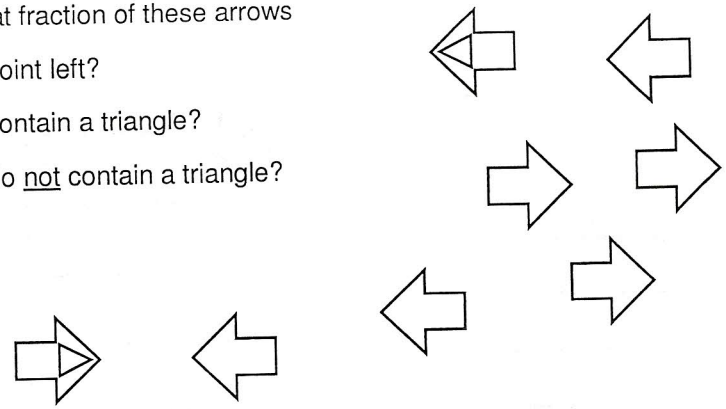


2 What fraction of these arrows

a) point left?

b) contain a triangle?

c) do not contain a triangle?



3 What fraction of these shapes

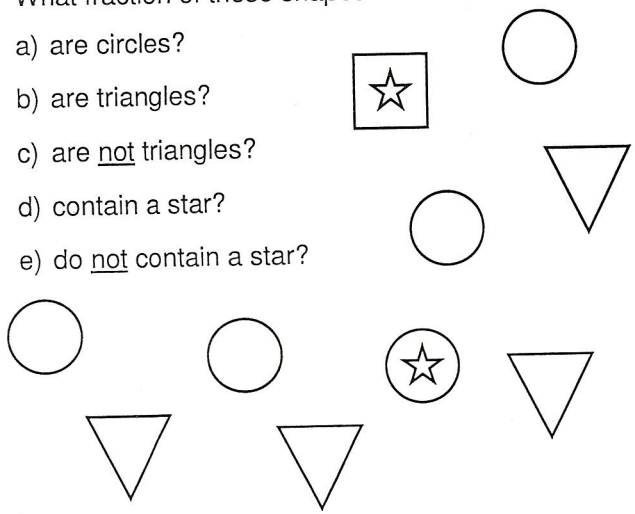
a) are circles?

b) are triangles?

c) are not triangles?

d) contain a star?

e) do not contain a star?



4 What fraction of these stars

a) have only 4 points?

b) have 8 points?

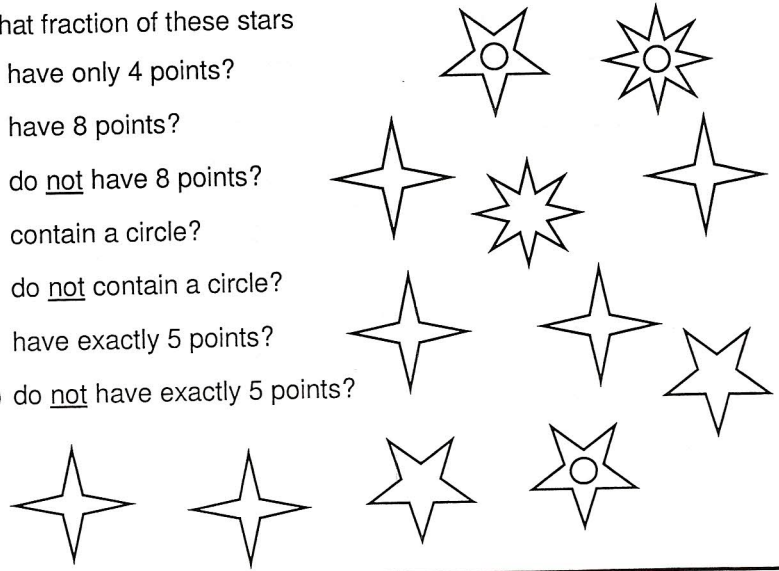
c) do not have 8 points?

d) contain a circle?

e) do not contain a circle?

f) have exactly 5 points?

g) do not have exactly 5 points?



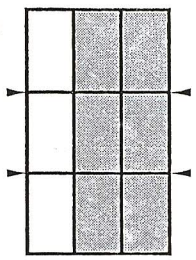
Changing Fractions | Worksheet 2

a) What fractions do these shaded blocks show (how much is shaded)? Write your answers in the boxes on the left below each block.

b) Draw new horizontal lines across the blocks at the points indicated by the markers. What "new" fraction does each block show now? Write your answer in the second box.

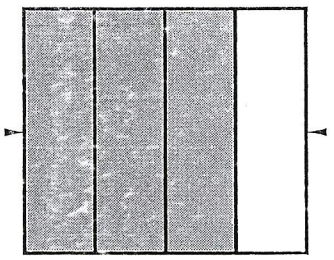
Question 1 has been completed as an example...

1)



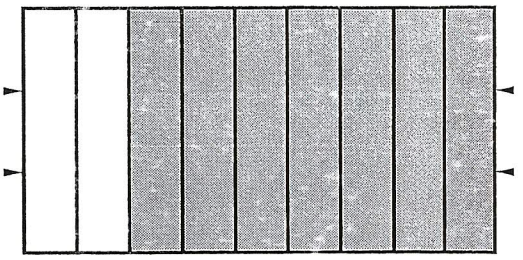
$\frac{2}{3} = \frac{6}{9}$

5)



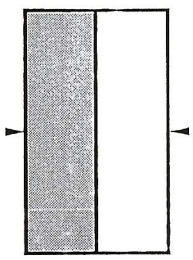
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

9)



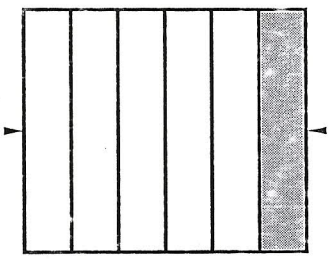
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

2)



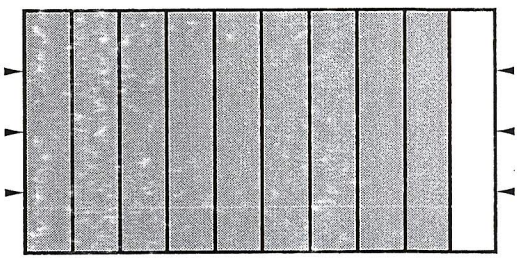
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

6)



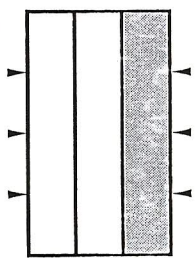
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

10)



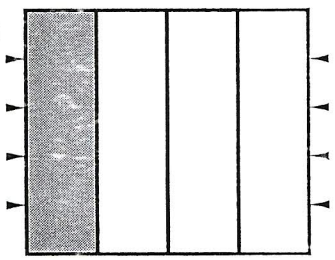
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

3)



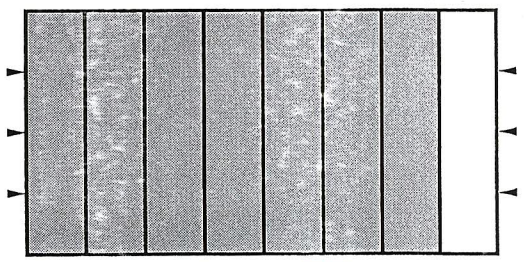
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

7)



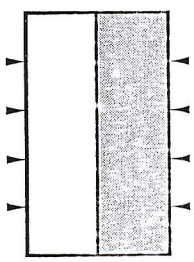
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

11)



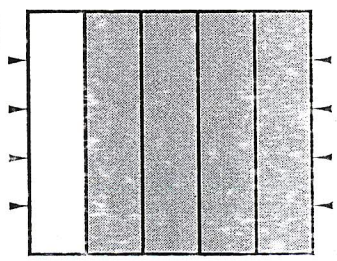
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

4)



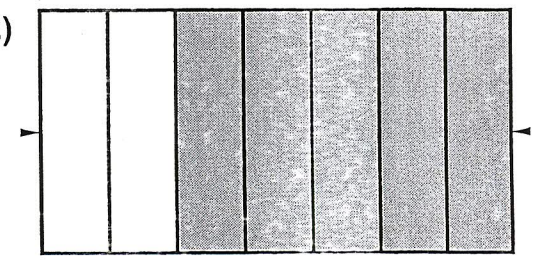
$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

8)



$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

12)



$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

Equivalent Fractions (A)

Instructions: Find the missing numbers in the equivalent fractions below.

$\frac{\quad}{11} = \frac{12}{44}$ $\quad \frac{4}{5} = \frac{12}{\quad}$ $\quad \frac{6}{12} = \frac{24}{\quad}$ $\quad \frac{4}{6} = \frac{8}{\quad}$

$\frac{1}{5} = \frac{\quad}{25}$ $\quad \frac{3}{\quad} = \frac{6}{24}$ $\quad \frac{8}{\quad} = \frac{16}{20}$ $\quad \frac{2}{\quad} = \frac{10}{15}$

$\frac{2}{3} = \frac{8}{\quad}$ $\quad \frac{1}{\quad} = \frac{2}{4}$ $\quad \frac{\quad}{3} = \frac{5}{15}$ $\quad \frac{4}{5} = \frac{\quad}{15}$

$\frac{\quad}{4} = \frac{8}{16}$ $\quad \frac{7}{9} = \frac{14}{\quad}$ $\quad \frac{1}{2} = \frac{3}{\quad}$ $\quad \frac{4}{8} = \frac{\quad}{32}$

$\frac{4}{\quad} = \frac{20}{45}$ $\quad \frac{3}{7} = \frac{\quad}{28}$ $\quad \frac{\quad}{6} = \frac{4}{12}$ $\quad \frac{5}{9} = \frac{\quad}{36}$

$\frac{10}{12} = \frac{\quad}{36}$ $\quad \frac{4}{7} = \frac{12}{\quad}$ $\quad \frac{1}{2} = \frac{\quad}{8}$ $\quad \frac{7}{\quad} = \frac{28}{32}$

Equivalent Fractions (B)

Instructions: Find the missing numbers in the equivalent fractions below.

$\frac{\quad}{7} = \frac{3}{21}$ $\quad \frac{1}{11} = \frac{4}{\quad}$ $\quad \frac{\quad}{9} = \frac{15}{45}$ $\quad \frac{\quad}{12} = \frac{16}{24}$

$\frac{3}{\quad} = \frac{15}{20}$ $\quad \frac{2}{7} = \frac{\quad}{35}$ $\quad \frac{6}{11} = \frac{\quad}{44}$ $\quad \frac{3}{\quad} = \frac{12}{20}$

$\frac{\quad}{2} = \frac{2}{4}$ $\quad \frac{\quad}{9} = \frac{12}{27}$ $\quad \frac{4}{9} = \frac{20}{\quad}$ $\quad \frac{9}{10} = \frac{\quad}{50}$

$\frac{\quad}{9} = \frac{40}{45}$ $\quad \frac{7}{9} = \frac{21}{\quad}$ $\quad \frac{\quad}{10} = \frac{12}{20}$ $\quad \frac{\quad}{5} = \frac{2}{10}$

$\frac{3}{\quad} = \frac{9}{33}$ $\quad \frac{\quad}{4} = \frac{4}{8}$ $\quad \frac{5}{6} = \frac{25}{\quad}$ $\quad \frac{5}{10} = \frac{\quad}{40}$

$\frac{\quad}{11} = \frac{12}{22}$ $\quad \frac{4}{6} = \frac{\quad}{12}$ $\quad \frac{3}{10} = \frac{\quad}{20}$ $\quad \frac{2}{\quad} = \frac{6}{33}$

Equivalent Fractions (C)

Instructions: Find the missing numbers in the equivalent fractions below.

$\frac{\quad}{2} = \frac{5}{10}$ $\quad \frac{8}{11} = \frac{\quad}{22}$ $\quad \frac{\quad}{11} = \frac{18}{22}$ $\quad \frac{\quad}{4} = \frac{5}{20}$

$\frac{1}{6} = \frac{\quad}{30}$ $\quad \frac{2}{4} = \frac{8}{\quad}$ $\quad \frac{3}{7} = \frac{\quad}{28}$ $\quad \frac{1}{3} = \frac{\quad}{12}$

$\frac{1}{2} = \frac{5}{\quad}$ $\quad \frac{\quad}{12} = \frac{45}{60}$ $\quad \frac{4}{5} = \frac{\quad}{25}$ $\quad \frac{5}{10} = \frac{20}{\quad}$

$\frac{2}{3} = \frac{8}{\quad}$ $\quad \frac{1}{2} = \frac{\quad}{8}$ $\quad \frac{1}{\quad} = \frac{2}{8}$ $\quad \frac{\quad}{2} = \frac{4}{8}$

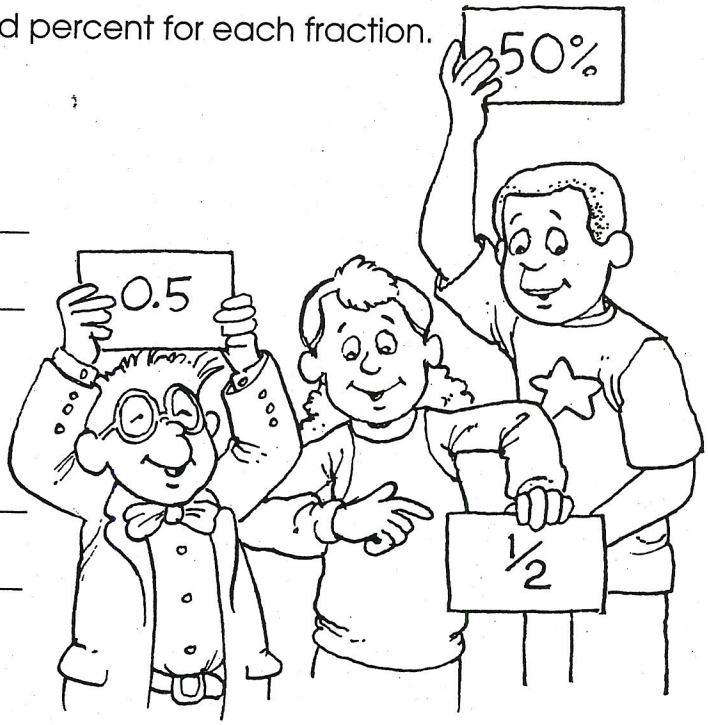
$\frac{5}{\quad} = \frac{20}{24}$ $\quad \frac{\quad}{8} = \frac{15}{24}$ $\quad \frac{2}{8} = \frac{4}{\quad}$ $\quad \frac{10}{\quad} = \frac{30}{33}$

$\frac{1}{2} = \frac{3}{\quad}$ $\quad \frac{\quad}{5} = \frac{12}{15}$ $\quad \frac{4}{11} = \frac{\quad}{55}$ $\quad \frac{2}{\quad} = \frac{8}{16}$

Name _____

Triplets

Using the Number Box, write the decimal and percent for each fraction.



A. fraction: $\frac{1}{4}$

decimal: _____

percent: _____

B. fraction: $\frac{3}{4}$

decimal: _____

percent: _____

C. fraction: $\frac{1}{10}$

decimal: _____

percent: _____

D. fraction: $\frac{1}{2}$

decimal: _____

percent: _____

E. fraction: $\frac{1}{5}$

decimal: _____

percent: _____

F. fraction: $\frac{1}{8}$

decimal: _____

percent: _____

G. fraction: $\frac{1}{20}$

decimal: _____

percent: _____

H. fraction: $\frac{4}{5}$

decimal: _____

percent: _____

Number Box

0.125	20%	80%
25%	0.8	0.25
12.5%	5%	75%
0.1	50%	0.2
0.5	0.75	10%
	0.05	

SOL 6.1

Name_____

Skill: Fractions, Decimals, and Percentages Review

Complete the chart.

	Fraction	Decimal	Percentage
1.			5%
2.		.17	
3.	$\frac{13}{20}$		
4.			6%
5.			12.5%
6.	$\frac{1}{4}$		
7.	$\frac{4}{5}$		
8.		.45	
9.		.20	
10.			35%

Total Problems 10 Problems Correct ____

SHARPEN YOUR SKILLS

Percents, Fractions, and Decimals

Complete the table. Write the fractions in lowest terms.

Fraction	Decimal	Percent	Fraction	Decimal	Percent
	0.25		$\frac{3}{5}$		
	$0.1\overline{6}$			0.575	
$\frac{1}{2}$					40%
		75%			39%
$\frac{1}{1}$	1	100%	$\frac{1}{3}$		
	0.7		$\frac{3}{10}$		
		1%			5%
$\frac{1}{5}$				0.875	
$\frac{9}{10}$			$\frac{1}{10}$		
	0.8				37.5%
$\frac{5}{6}$				0.625	
$\frac{1}{8}$			$\frac{7}{20}$		

Name _____ Date _____ Class _____

LESSON 7-8

Practice B

Percents, Decimals, and Fractions

Write each decimal as a percent.

1. 0.03 _____
2. 0.92 _____
3. 0.18 _____
4. 0.49 _____
5. 0.7 _____
6. 0.09 _____
7. 0.26 _____
8. 0.11 _____
9. 1.0 _____

Write each fraction as a percent.

10. $\frac{2}{5}$ _____
11. $\frac{1}{5}$ _____
12. $\frac{7}{10}$ _____
13. $\frac{1}{20}$ _____
14. $\frac{1}{50}$ _____
15. $\frac{4}{50}$ _____

Compare. Write <, >, or = .

16. 60% ☐ $\frac{2}{3}$
17. 0.4 ☐ $\frac{2}{5}$
18. 0.5 ☐ 5%
19. $\frac{1}{100}$ ☐ 0.03
20. $\frac{7}{9}$ ☐ 72%
21. $\frac{3}{10}$ ☐ 35%

22. Bradley completed $\frac{3}{5}$ of his homework. What percent of his homework does he still need to complete?

_____

23. After reading a book for English class, 100 students were asked whether or not they enjoyed it. Nine twenty-fifths of the students did not like the book. How many students liked the book?

_____

SOL 6.1

1. 1. **If 20 of 100 squares on a grid are shaded blue, what percent of the squares are blue?**

A 2%
B 5%
C 20%
D 80%

2. If 12 of 100 squares on a grid are shaded, what percent of the squares are shaded?

A 1.2%
B 12%
C 88%
D 120%

3. What is $\frac{3}{10}$ as a percent and a decimal?

A 3%; 0.03
B 30%; 0.3
C 33%; 3.3
D 70%; 0.007

4. What is 0.06 as a percent and a fraction?

A 0.06%; $\frac{6}{10}$

B 6%; $\frac{6}{100}$

C 16%; $\frac{16}{100}$

D 60%; $\frac{60}{10}$

5. If you had 100 questions on your math exam and you got 95 of them correct, what is your grade expressed as a fraction, as a decimal, and as a percent?

A $\frac{5}{100}$; 0.05; 5%

B $\frac{95}{100}$; 0.95; 9.5%

C $\frac{95}{100}$; 0.05; 95%

D $\frac{95}{100}$; 0.95; 95%

6. If you have 18 of 20 words correctly spelled on your weekly quiz, your score expressed as a fraction, as a decimal, and as a percent is:

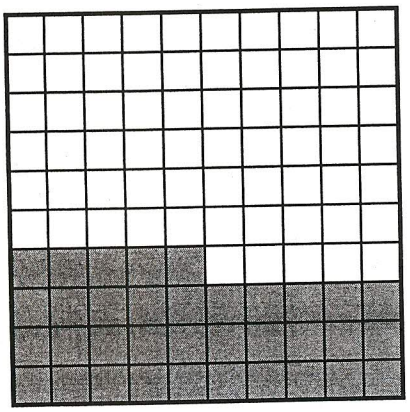
A $\frac{18}{20}$; 0.18; 90%

B $\frac{18}{20}$; 0.90; 90%

C $\frac{18}{20}$; 0.18; 18%

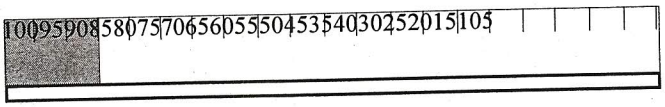
D $\frac{18}{20}$; 0.90; 18%

7. What percent of the blocks are shaded?



A 35%
B 50%
C 65%
D 80%

8. What percent of this scale is shaded?

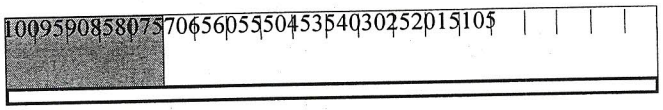


A about 10%
B about 15%
C about 20%
D about 25%

9. Which of the following statements does *not* describe the meaning of the word percent?

A Percents are based on hundredths.
B Percents are a way of expressing how many out of 100.
C A number followed by a % sign can be written as a fraction by placing that number over the denominator of 100.
D Percents have the same meaning as perimeter.

10. What fraction of this entire scale is represented by the shaded portion?



A $\frac{25}{4}$

B $\frac{25}{10}$

C $\frac{10}{25}$

D $\frac{25}{100}$

11. What number is 400% of 5?

A 2.5
B 20
C 25
D 2000

12. What are the decimal and percent equivalents for one-third?

A 0.03 and 3%
B 0.33 and 33%
C 0.13 and 13%
D 3.33 and 3.33%

13. What fraction is equivalent to 0.25 and 25%?

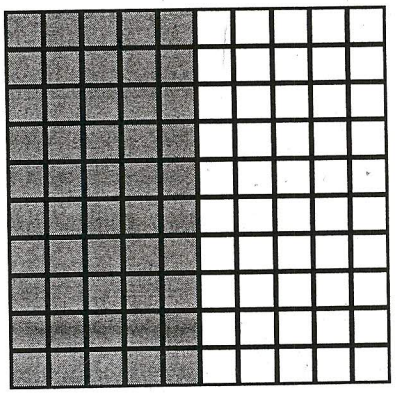
A $\frac{1}{2}$

B $\frac{1}{3}$

C $\frac{1}{4}$

D $\frac{1}{10}$

14. Which of the following represent the picture below?



A $\frac{5}{10}$, 0.50 , 50%

B $\frac{1}{2}$, 0.05 , 5%

C $\frac{5}{10}$, 0.5 , 5%

D $\frac{1}{2}$, 0.05, 0.5%

15. What percent is equivalent to $\frac{3}{5}$?

A 40%
B 60%
C $33\frac{1}{3}\%$
D 35%

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5-7

Study Guide and Intervention

Writing Fractions as Decimals

Any fraction can be written as a decimal using division. Decimals like 0.5 and 0.516 are called **terminating decimals** because the digits end. A decimal like $0.\overline{87} = 0.878787\ldots$ is called a **repeating decimal** because the digits repeat.

EXAMPLE 1 **Write $\frac{3}{8}$ as a decimal.**

Divide.

$$\begin{array}{r} 0.375 \\ 8\overline{)3.000} \\ -24 \\ \hline 60 \\ -56 \\ \hline 40 \\ -40 \\ \hline 0 \end{array}$$

Therefore, $\frac{3}{8} = 0.375$.

EXAMPLE 2 **Write $\frac{7}{11}$ as a decimal.**

Divide.

$$\begin{array}{r} 0.6363 \\ 11\overline{)7.0000} \\ -66 \\ \hline 40 \\ -33 \\ \hline 70 \\ -66 \\ \hline 40 \\ -33 \\ \hline 7 \end{array}$$

The pattern repeats. Therefore, $\frac{7}{11} = 0.\overline{63}$.

EXERCISES

Write each fraction or mixed number as a decimal.

1. $\frac{3}{10}$
2. $\frac{3}{4}$
3. $\frac{1}{3}$
4. $\frac{3}{5}$
5. $\frac{1}{8}$
6. $2\frac{1}{4}$
7. $1\frac{5}{6}$
8. $3\frac{8}{9}$
9. $1\frac{3}{11}$
10. $1\frac{5}{8}$
11. $3\frac{1}{6}$
12. $4\frac{5}{11}$

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LESSON 7-8

Practice A

Percents, Decimals, and Fractions

Write each decimal as a percent.

1. 0.1 _____

2. 0.6 _____

3. 0.02 _____

4. 0.14 _____

5. 0.22 _____

6. 0.03 _____

7. 0.25 _____

8. 0.17 _____

9. 0.39 _____

10. 0.8 _____

11. 0.04 _____

12. 0.99 _____

Write each fraction as a percent.

13. $\frac{1}{2}$ _____

14. $\frac{1}{4}$ _____

15. $\frac{3}{4}$ _____

16. $\frac{7}{10}$ _____

17. $\frac{97}{100}$ _____

18. $\frac{33}{100}$ _____

19. Brett scored $\frac{1}{4}$ of all the baskets he shot during the basketball game. What percent did he make?

_____

20. Sarah has 3 dimes and 1 nickel. Jamie has 2 quarters. What percent of a dollar do they each have?

_____

21. Mike, Joey, and Kini are playing a shooting game at the fair. Mike made $\frac{3}{5}$ of his shots, Joey made $\frac{4}{5}$, and Kini made $\frac{2}{5}$. Write the percent each boy made.

_____

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10-5 Study Guide and Intervention

Percents and Fractions

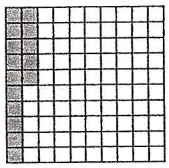
To write a percent as a fraction, write it as a fraction with a denominator of 100. Then simplify.

EXAMPLE 1 **Write 15% as a fraction in simplest form.**

15% means *15 out of 100*.

$15\% = \frac{15}{100}$ Write the percent as a fraction with a denominator of 100.

$= \frac{\overset{3}{\cancel{15}}}{\underset{20}{\cancel{100}}}$ or $\frac{3}{20}$ Simplify. Divide the numerator and denominator by the GCF, 5.

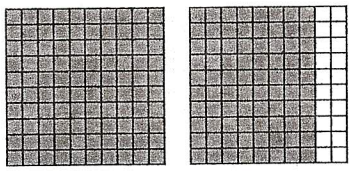


EXAMPLE 2 **Write 180% as a fraction in simplest form.**

180% means *180 out of 100*.

$180\% = \frac{180}{100}$ Write the percent as a fraction with a denominator of 100.

$= \frac{\overset{4}{\cancel{180}}}{\underset{5}{\cancel{100}}}$ or $1\frac{4}{5}$ Simplify.



You can also write fractions as percents. To write a fraction as a percent, write a proportion and solve.

EXAMPLE 3 **Write $\frac{2}{5}$ as a percent.**

$\frac{2}{5} = \frac{n}{100}$ Set up a proportion.

$2 \times 100 = 5 \times n$ Write the cross products.

$200 = 5n$ Multiply.

$\frac{200}{5} = \frac{5n}{5}$ Divide each side by 5.

$40 = n$

So, $\frac{2}{5}$ is equivalent to 40%.

EXAMPLE 4 **Write $\frac{9}{8}$ as a percent.**

$\frac{9}{8} = \frac{p}{100}$ Set up a proportion.

$9 \times 100 = 8 \times p$ Write the cross products.

$900 = 8p$ Multiply.

$\frac{900}{8} = \frac{8p}{8}$ Divide each side by 8.

$112.5 = p$

So, $\frac{9}{8}$ is equivalent to 112.5%.

EXERCISES

Write each percent as a fraction in simplest form.

1. 20%
2. 35%
3. 70%
4. 60%
5. 150%
6. 225%

Write each fraction as a percent.

7. $\frac{3}{10}$
8. $\frac{2}{100}$
9. $\frac{8}{5}$
10. $\frac{1}{5}$
11. $\frac{10}{8}$
12. $\frac{13}{100}$

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10-5 Practice: Word Problems

Percents and Fractions

1. TOYS The Titanic Toy Company has a 4% return rate on its products. Write this percent as a fraction in simplest form.	**2. MUSIC** There are 4 trombones out of 25 instruments in the Landers town band. What percent of the instruments are trombones?
3. SHOPPING Alicia's favorite clothing store is having a 30% off sale. What fraction represents the 30% off sale?	**4. FOOD** At Ben's Burger Palace, 45% of the customers order large soft drinks. What fraction of the customers order large soft drinks?
5. BASKETBALL In the 2001–2002 NBA season, Shaquille O'Neal of the Los Angeles Lakers made 60% of his field goals. What fraction of his field goals did Shaquille make?	**6. SCHOOL** In Janie's class, 7 out of 25 students have blue eyes. What percent of the class has blue eyes?
7. TESTS Michael answered $\frac{17}{20}$ questions correctly on his test. What percent of the questions did Michael answer correctly?	**8. RESTAURANTS** On Saturday afternoon, $\frac{41}{50}$ telephone calls taken at The Overlook restaurant were for dinner reservations. What percent of the telephone calls were for dinner reservations?