NAME _____ DATE _____ PERIOD _____

4-7 Practice

Percents and Decimals

Write each percent as a decimal.

1. 35%

2. 90%

3. 5 %

4. 1%

5. 21.8%

6. 64.8%

7. 4.1%

8. 8.5%

9. $39\frac{21}{50}\%$

10. $17\frac{2}{5}\%$

11. $40\frac{3}{4}\%$

12. $88\frac{3}{5}\%$

Write each decimal as a percent.

13. 0.4

14. 0.8

15. 3.7

16. 9.1

17. 0.77

18. 0.03

19. 0.25

20. 0.59

21. 0.375

22. 0.123

23. 0.005

24. 0.6019

Replace each ● with >, <, or = to make a true sentence.

25. 1.5 ● 15%

26. 0.88 ● 8.8%

27. 33% ● 0.33

28. 90% ● 0.09

29. 0.26 ● 27%

30. 65.4% ● 0.645

ANALYZE TABLES For Exercises 31–33, use the table and the information given.

The table lists the approximate milk fat content of 5 types of milk products.

31. Which product has the highest milk fat content?

32. Find the approximate number of grams of milk fat in a 200-gram serving of whole milk.

33. Which milk product will have approximately 15.36 grams of milk fat in an 80-gram serving?

Milk Product	Percent Milk Fat
Heavy Cream	36.7%
Light Cream	19.2%
Whole Milk	3.5%
Low-Fat Milk	1.5%
Skim Milk	0.05%

NAME _____ DATE _____ PERIOD _____

4-6 Study Guide and Intervention

Fractions and Percents

A **ratio** is a comparison of two numbers by division. When a ratio compares a number to 100, it can be written as a **percent**. To write a ratio or fraction as a percent, find an equivalent fraction with a denominator of 100. You can also use the meaning of percent to change percents to fractions.

Example 1 **Write $\frac{19}{20}$ as a percent.**

$\frac{19}{20} \xrightarrow{\times 5} \frac{95}{100} = 95\%$ Since 100 ÷ 20 = 5, multiply the numerator and denominator by 5.

Example 2 **Write 92% as a fraction in simplest form.**

$92\% = \frac{92}{100}$ Definition of percent

$= \frac{23}{25}$ Simplify.

Exercises

Write each ratio as a percent.

1. $\frac{14}{100}$
2. $\frac{27}{100}$
3. 34.5 per 100
4. 18 per 100
5. 21:100
6. 96:100

Write each fraction as a percent. #7-18... use chart on back

7. $\frac{3}{100}$
8. $\frac{14}{100}$
9. $\frac{2}{5}$
10. $\frac{1}{20}$
11. $\frac{13}{25}$
12. $\frac{4}{10}$

Write each percent as a fraction in simplest form.

13. 35%
14. 18%
15. 75%
16. 80%
17. 16%
18. 15%

	Fraction	Decimal	Percent
7)	$\frac{3}{100}$		
8)	$\frac{14}{100}$		
9)	$\frac{2}{5}$		
10)	$\frac{1}{20}$		
11)	$\frac{13}{25}$		
12)	$\frac{4}{10}$		
13)			35%
14)			18%
15)			75%
16)			80%
17)			16%
18)			15%

NAME _____ DATE _____ PERIOD _____

4-6 Skills Practice

Fractions and Percents

Write each ratio as a percent.

1. 26 out of 100
2. 5 per 100
3. 13:100
4. $\frac{39}{100}$
5. 12.5 per 100
6. 51 out of 100

Do #7-24 in chart on the back

Write each fraction as a percent.

7. $\frac{7}{10}$
8. $\frac{6}{50}$
9. $\frac{13}{20}$
10. $\frac{30}{50}$
11. $\frac{7}{20}$
12. $\frac{12}{20}$
13. $\frac{23}{25}$
14. $\frac{3}{10}$
15. $\frac{17}{50}$

Write each percent as a fraction in simplest form.

16. 15%
17. 85%
18. 1%
19. 70%
20. 25%
21. 19%
22. 33%
23. 22%
24. 95%

	Fraction	Decimal	Percent
7)	$\frac{7}{10}$		
8)	$\frac{6}{50}$		
9)	$\frac{13}{20}$		
10)	$\frac{30}{50}$		
11)	$\frac{7}{20}$		
12)	$\frac{12}{20}$		
13)	$\frac{23}{25}$		
14)	$\frac{3}{10}$		
15)	$\frac{17}{50}$		
16)			15%
17)			85%
18)			1%
19)			70%
20)			25%
21)			19%
22)			33%
23)			22%
24)			95%

NAME _____ DATE _____ PERIOD ____

4-6 Practice

Fractions and Percents

Write each ratio as a percent.

1. 56 out of 100 CDs sold

2. 75 per 100 adults

3. 89.2 out of 100 hours worked

4. 26.5:100 Calories

5. $45\frac{7}{8}$ out of 100 meters

6. $33\frac{1}{3}$:100 minutes

Write each fraction as a percent.

7. $\frac{6}{10}$

8. $\frac{7}{20}$

9. $\frac{21}{25}$

10. $\frac{12}{50}$

11. $\frac{1}{2}$

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

13. $\frac{20}{90}$

14. $\frac{24}{25}$

Write each percent as a fraction in simplest form.

15. 40%

16. 35%

17. 72%

18. 44%

19. 90%

20. 17%

21. 5%

22. 26%

DO #7-22 ON BACK

Replace each ● with >, <, or = to make a true sentence.

23. $\frac{1}{10}$ ● 15%

24. $\frac{3}{4}$ ● 72%

25. 85% ● $\frac{17}{20}$

26. $\frac{21}{25}$ ● 21%

27. 27% ● $\frac{27}{50}$

28. $\frac{4}{5}$ ● 60%

29. **SPORTS** If twenty-seven out of every 50 sports fans attend at least one professional game every year, what percent of sports fans attend at least one professional game every year?

30. **WEATHER** It rained 18 days during the month of April. What percent of the days during the month of April did it not rain?

	Fraction	Decimal	Percent
7)	$\frac{6}{10}$		
8)	$\frac{7}{20}$		
9)	$\frac{21}{25}$		
10)	$\frac{12}{50}$		
11)	$\frac{1}{2}$		
12)	$\frac{4}{5}$		
13)	$\frac{20}{90}$		
14)	$\frac{24}{25}$		
15)			40%
16)			35%
17)			72%
18)			44%
19)			90%
20)			17%
21)			5%
22)			26%

Name _____ Date _____ Pd_____

WS "Skills Practice 6-9"

	Fraction	Decimal	Percent			Fraction	Decimal	Percent
1)			18%		13)	$\frac{3}{5}$		
2)			67.5%		14)	$\frac{3}{8}$		
3)			21.25%		15)	$\frac{2}{18}$		
4)			87.5%		16)	$\frac{3}{16}$		
5)			$31\frac{1}{4}\%$		17)	$\frac{7}{9}$		
6)			17.5%		18)	$\frac{21}{50}$		
7)			$18\frac{3}{4}\%$		19)	$\frac{1}{3}$		
8)			$68\frac{3}{4}\%$		20)	$\frac{42}{50}$		
9)			7.5%		21)	$\frac{7}{16}$		
10)			130%		22)	$\frac{17}{10}$		
11)			0.5%		23)	$\frac{1}{500}$		
12)			0.02%		24)	$\frac{26}{25}$		

Name:_____ Date:_____ Period:_____

Chart of Champions 2

(Fractions = Percents)

$\frac{1}{2}=$	$\frac{1}{3}=$	$\frac{1}{4}=$	$\frac{1}{5}=$	$\frac{1}{6}=$	$\frac{1}{8}=$	$\frac{1}{9}=$	$\frac{1}{10}=$
	$\frac{2}{3}=$	$\frac{2}{4}=$	$\frac{2}{5}=$	$\frac{2}{6}=$	$\frac{2}{8}=$	$\frac{2}{9}=$	$\frac{2}{10}=$
		$\frac{3}{4}=$	$\frac{3}{5}=$	$\frac{3}{6}=$	$\frac{3}{8}=$	$\frac{3}{9}=$	$\frac{3}{10}=$
			$\frac{4}{5}=$	$\frac{4}{6}=$	$\frac{4}{8}=$	$\frac{4}{9}=$	$\frac{4}{10}=$
				$\frac{5}{6}=$	$\frac{5}{8}=$	$\frac{5}{9}=$	$\frac{5}{10}=$
					$\frac{6}{8}=$	$\frac{6}{9}=$	$\frac{6}{10}=$
					$\frac{7}{8}=$	$\frac{7}{9}=$	$\frac{7}{10}=$
						$\frac{8}{9}=$	$\frac{8}{10}=$
							$\frac{9}{10}=$
							$\frac{10}{10}=$

Name _____ Date _____ Pd_____

WS "Stilwell Skills Practice 4-6, 4-7, & 6-9"

I. Change to a Percent:

_____ 1) $\frac{1}{2}$ _____ 2) $\frac{4}{5}$ _____ 3) $\frac{7}{10}$

_____ 4) $\frac{3}{4}$ _____ 5) $\frac{19}{20}$ _____ 6) $\frac{11}{25}$

_____ 7) $\frac{23}{50}$ _____ 8) $\frac{1}{4}$ _____ 9) $\frac{3}{8}$

_____ 10) $\frac{7}{40}$ _____ 11) $2\frac{1}{5}$ _____ 12) $\frac{7}{8}$

_____ 13) $\frac{5}{12}$ _____ 14) $\frac{1}{3}$ _____ 15) $\frac{5}{6}$

_____ 16) $\frac{1}{24}$ _____ 17) $\frac{4}{11}$ _____ 18) $\frac{5}{8}$

_____ 19) $\frac{2}{3}$ _____ 20) 1 _____ 21) $\frac{7}{9}$

II. Change to a Fraction or Mixed Number: (Don't forget to reduce ☺):

_____ 22) 60% _____ 23) 85% _____ 24) 24%

_____ 25) 150% _____ 26) 38% _____ 27) 75%

_____ 28) 90% _____ 29) 17% _____ 30) 12.5%

_____ 31) 2.5% _____ 32) 6.25% _____ 33) $16\frac{2}{3}\%$

_____ 34) $11\frac{1}{9}\%$ _____ Bonus 35) $8\frac{1}{3}\%$ _____ Bonus 36) $10\frac{5}{7}\%$

OVER⟶

Name _____ Date _____ Pd_____

III. Change to a Percent:

_____ 37) 0.43	_____ 38) 0.4	_____ 39) 5
_____ 40) 0.396	_____ 41) 0.1875	_____ 42) 1.7
_____ 43) 2	_____ 44) 0.025	_____ 45) 0.2
_____ 46) 0.87	_____ 47) 0.0371	_____ 48) 1

IV. Change to a Decimal:

_____ 49) 75%	_____ 50) 8%	_____ 51) 100%
_____ 52) 1.9%	_____ 53) $1{,}000\%$	_____ 54) 60%
_____ 55) $18\frac{3}{4}\%$	_____ 56) $12\frac{1}{2}\%$	_____ 57) $6\frac{1}{4}\%$
_____ 58) $33\frac{1}{3}\%$	_____ 59) $8\frac{1}{3}\%$	_____ 60) $16\frac{2}{3}\%$

Name _____ Date _____ Pd_____

WS "Stilwell Practice 4-6, 4-7, & 6-9"

	Fraction	Decimal	Percent	Work Space
1)	$\frac{7}{20}$			
2)			32%	
3)		0.8		
4)	$\frac{1}{3}$			
5)			$16\frac{2}{3}\%$	
6)		0.06		
7)	$\frac{3}{8}$			
8)			17.5%	
9)		0.75		
10)	$\frac{5}{12}$			
11)			100%	
12)		2.5		

Name _____ Date _____ Pd_____

Chapter 4.2: Percents in Real Life Notes

I. Tips: In your head (_____)
Exact (_____)

1) P.F. Chang's bill was $64.20. What will the total be with a 20% tip?

2) Granite City's bill was $125.00. What will the total be with a 15% tip?

II. Discount: In your head (_____)
Exact (_____)

3) Miss Me Jeans costs $155.00. What is the total with a 20% off coupon?

4) An Under Armor Jacket costs $74.00. What is the total with a 25% off coupon?

III. Tax (Hint: Multiply by 1.0_)

5) Roxy swim suit cost $58. What is the total including 6% sales tax?

6) A used car costs $5,259. What is the total including 5% sales tax?

IV. Test Scores (Hint: reduce first)

7) You received 36/40 on your test. What percent did you receive?

8) You received 35/42 on your test. What percent did you receive?

Name _____ Date _____ Pd_____

Chapter 4.2: Percents in Real Life #1

I. Tips (Hint: Find 10% First)

1) Johnny's Steak House bill was $145.00. What is the total with a 15% tip?

2) On the Border's bill was $76.50. What is the total with a 20% tip?

II. Discount (Hint: Find 10% First)

3) Uggs cost $175.00. What is the total with a 40% off coupon?

4) A Hollister shirt costs $67.00. What is the total with a 25% off coupon?

III. Tax

5) Candy cost $15. What is the total including 6% sales tax?

6) Beats cost$175. What is the total including 5% sales tax?

IV. Test Scores

7) You received 49/63 on your test. What percent did you receive?
(Hint: reduce first)

8) You received 21/28 on your test. What percent did you receive?
(Hint: reduce first)

Name _____ Date _____ Pd_____

Chapter 4.2: Percents in Real Life #2

I. Tips (Hint: Find 10% First)

In your head	Exact

1) Perkins bill was $25.00. What will the total be with a 15% tip?

2) BWW's bill was $53.20. What will the total be with a 20% tip?

3) Cheesecake's bill was $107.35. What will the total be with a 20% tip?

4) Champp's bill was $79.60. What will your total be with a 15% tip?

5a) Where should you give a tip? And how much do you tip at each place?

5b) If you have a gift card, do you still tip? 5c) Does it matter how much time you spend at the place?

II. Discount (Hint: Find 10% First)

In your head	Exact

8) Shoes cost $75.00. How much will you pay with a 30% off coupon?

9) A hoodie costs $48.00. How much will you pay with a 25% off coupon?

10) An iPod costs $106.99. How much will you pay with a 15% off coupon? (Hint: round up to the nearest cent)

11a) A Xbox costs $200. You have a coupon for 30% off & there is a sign on the item saying it's already 20% off. Does it work if you add percents?

11b) How much will you pay?

Calculators OK!

III. Tax (Hint: Multiply by 1.0_)

12) Sweats cost $55. What is your total including 6% sales tax?

13) A spring break trip costs $3,255. What is your total including 5% sales tax?

14) Jeans cost $100. What is your total including 7% sales tax?

15) Cherry Berry froyo costs $19.99. What is your total including 6% sales tax?
(Hint: round to the nearest cent)

IV. Test Scores

16) You received 24/40 on your test. What percent did you receive?
(Hint: reduce first)

17) You received 35/40 on your test. What percent did you receive?
(Hint: reduce first)

18) You received 44/48 on your test. What percent did you receive?
(Hint: reduce first then round to the nearest percent)

19) You received 73/95 on your test. What percent did you receive?
(Hint: round to the nearest percent)

FINALLY DONE

Name _____ Date _____ Pd_____

Chapter 4.2 Bringing It All Together #1

I. Write each ratio as a percent:

_____ 1) $57:100$ insects are spiders

_____ 2) 42 per 100 teenagers

_____ 3) 87 out of 100 books read

_____ 4) $\$29.20$ per $\$100$

II. Compare: $<$, $>$ or $=$

5) $\frac{1}{4}$ _____ 25% 6) 0.25% _____ 0.125

7) $\frac{9}{20}$ _____ 55% 8) 0.76 _____ 76.5%

9) 78% _____ $\frac{3}{5}$ 10) 500% _____ 50

III. Fill in the chart:

	Fraction	Decimal	Percent	Work Space
11)	$\frac{7}{8}$			
12)			140%	
13)		0.08		
14)	$\frac{7}{11}$			

OVER ⟶

Name _____ Date _____ Pd_____

	Fraction	Decimal	Percent	Work Space
15)			52%	
16)		3.025		
17)	$\frac{11}{25}$			
18)			5.4%	
19)		1.25		
20)	$\frac{5}{6}$			
21)			$1{,}000\%$	
22)		0.9		
23)	$7\frac{9}{20}$			
24)		0.375		
25)			$22\frac{2}{9}\%$	

Name _____ Date _____ Pd_____

Chapter 4.2 Bringing It All Together #2

I. Write each ratio as a percent:

_____ 1) 53 out of 100 DVDs bought

_____ 2) 29.8 out of 100 hours worked

_____ 3) $46\frac{1}{2}$ per 100 feet

_____ 4) $88\frac{1}{4} : 100$ minutes

II. Compare: $<$, $>$ or $=$

5) $\frac{3}{4}$ _____ 75% 6) 59% _____ 0.599

7) $\frac{9}{50}$ _____ 15% 8) 0.86 _____ 86.5%

9) 78% _____ $\frac{4}{5}$ 10) 600% _____ 60

III. Fill in the chart:

	Fraction	Decimal	Percent	Work Space
11)	$\frac{5}{8}$			
12)			140%	
13)		0.08		
14)	$\frac{7}{11}$			

OVER⟶

Name _____ Date _____ Pd_____

	Fraction	Decimal	Percent	Work Space
15)			38%	
16)		4.006		
17)	$\frac{37}{50}$			
18)			37.5%	
19)		9.25		
20)	$\frac{5}{6}$			
21)			800%	
22)		0.9		
23)	$6\frac{13}{20}$			
24)		0.125		
25)			$22\frac{2}{9}\%$	