

pg. 59 #5-11 odd, 21, 22

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

6. $\frac{1}{10}$

7. $\frac{3}{28}$

8. $\frac{8}{21}$

9. $\frac{5}{8}$

10. $\frac{1}{24}$

11. $\frac{1}{3}$

21. $\frac{3}{10}$

22. $\frac{1}{4}$

pg. 67 #1, 7-21 odd, 30, 31

1. *Sample answer:* $\frac{2}{5}, \frac{5}{2}$

7. $\frac{1}{8}$

9. $\frac{5}{2}$

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

13. 16

15. $\frac{1}{14}$

17. $\frac{1}{3}$

19. 3

21. $\frac{2}{27}$

30. $\frac{3}{25}$

pg. 74 (11-17 odd, 22-25 all, 27, 31, 38, 39)

11. $\frac{9}{10}$

13. $12\frac{1}{2}$

15. $1\frac{1}{5}$

17. $\frac{2}{7}$

22. 18 days

23. 14 hamburgers

24. 9 books

25. no; The model shows
 $2\frac{1}{2} \div 1\frac{1}{6} = 2\frac{1}{7}$. There are
2 full groups of $1\frac{1}{6}$ plus
one piece remaining, which
represents $\frac{1}{7}$ of $1\frac{1}{6}$.

27. 4

31. $5\frac{1}{6}$

38. See *Taking Math Deeper*.

39. a. 6 ramps; *Sample answer:* The
estimate is reasonable
because $12\frac{1}{2}$ was rounded down.
b. 6 ramps; $1\frac{1}{4}$ feet left over

pg. 82 (#7-29 odd, 30, *35) AND pg. 90 (#39-45 Odd)

- 7. 22.899
- 9. 29.937
- 11. 1.46
- 13. 4.366
- 15. 2.644
- 17. Line up the decimal points before adding. Insert a 0 at the end of the second number so that both numbers have the same number of decimal places. $6.058 + 3.95 = 10.008$.
- 19. \$8.30
- 21. 19.58
- 23. 10
- 25. 15.606
- 27. the decimal parts in the sum total 1;
the decimal parts in the difference
are exactly
the same
- 29. 34.995 m
- 30. 3.6 h
- 39. 109.74
- 41. 3.886
- 43. 13.7104
- 45. 51.3156

pg. 97 (13, 17, 21, 26, 27, 29, 31, 35, 37, 41, 49)

13. 6.7

17. 9.4

21. 0.098

26. \$0.12

27. the 5-ounce bottle; The price per ounce is \$2.06 for the 5-ounce bottle and \$2.12 for the 4-ounce bottle.

29. 1.62

31. 10.12

35. \$26.96

37. 9

41. 400

49. 113 tickets

pg. 522 (#11-17 odd, 21, 23, 25, 29, 35, 46)

11. 0.875

13. $-0.\overline{7}$

15. $1.8\overline{3}$

17. $-5.58\overline{3}$

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

23. $-\frac{39}{125}$

25. $-1\frac{16}{25}$

29. $-2.5, -1.1, -\frac{4}{5}, 0.8, \frac{9}{5}$

35. spotted turtle

46. See *Taking Math Deeper*.

pg. 528 (#5-17 odd, 21, 22, *27, *28)

5. $-1\frac{4}{5}$

7. $-\frac{5}{14}$

9. $-\frac{7}{12}$

11. 1.844

13. The decimals are not lined up correctly; Line up the decimals;
-3.95

15. $-1\frac{5}{12}$

17. $1\frac{5}{12}$

21. $-9\frac{3}{4}$

22. -2.6

27. no; This is only true when a and b have the same sign.

28. See *Taking Math Deeper*.

pg. 536 (#1-13 odd, 14, 18, 19, *23)

1. Instead of subtracting,
add the opposite of $\frac{3}{5}$, $-\frac{3}{5}$.
Then, add $\left| -\frac{4}{5} \right|$ and $\left| -\frac{3}{5} \right|$,
and the sign is negative.

3. $1\frac{1}{2}$

5. -3.5

7. $-18\frac{13}{24}$

9. -2.6

11. 14.963

13. $3\frac{1}{4}$

14. 10.6

18. $\frac{1}{18}$

19. 1.2

23. $-1\frac{7}{8}$ miles

Pg. 542 (#3, 5, 15-29 odd, 35-39 odd, 43, 45)

3. positive

5. negative

15. $2\frac{5}{14}$

17. $3.\overline{63}$

19. -6

21. -2.5875

23. $-\frac{4}{9}$

25. 9

27. 0.025

29. $8\frac{1}{4}$

35. -19.59

37. -22.667

39. $-5\frac{11}{24}$

43. $3\frac{5}{8}$ gal

45. -1.28 sec

Name Answers Date _____

Unit 2 Study Guide

1.4 - Prime Factorization

Write the prime factorization of the number using exponents.

1) 40

$$40 = 2^3 \times 5$$

2) 52

$$52 = 2^2 \times 13$$

1.5 - Lowest Common Multiple

Find the LCM of the numbers using prime factorizations.

3) 18, 24

$$72$$

4) 12, 21

$$84$$

1.6 - Greatest Common Factor

Find the GCF of the numbers using lists of factors or prime factorization.

5) 12, 32

$$4$$

6) 24, 64, 16

$$8$$

GCF & LCM Word Problems

- 7) A baker makes a strawberry cake every 2 days, a cheesecake every 3 days, and a double chocolate cake every 9 days. In how many days will the baker need to make all 3 cakes at once?

$$\text{In } 18 \text{ days}$$

- 8) You are making goodie bags for Olympus students for Halloween. You have 120 candy corns, 36 mini-snickers, and 96 M&Ms. You want to share the candy evenly. What is the greatest number of goodie bags you could make?

12 goodie bags

2.1 - Multiplying Fractions

9) $\frac{33}{45} \times \frac{9}{11}$

$\frac{3}{5}$

10) $5\frac{3}{4} \times 4\frac{2}{3}$

$26\frac{5}{6}$

2.2 - Dividing Fractions

11) $\frac{5}{8} \div \frac{1}{2}$

$1\frac{1}{4}$

12) $\frac{5}{9} \div \frac{6}{7}$

$\frac{35}{54}$

2.3 - Dividing Mixed Numbers

13) $2\frac{2}{5} \div \frac{1}{10}$

24

14) $3\frac{4}{9} \div 4\frac{1}{3}$

$\frac{31}{39}$

2.4 - Adding and Subtracting Decimals

15) $16.673 + 34.26$

50.933

16) $28.1 - 21.97$

6.13

2.5 - Multiplying Decimals

17) 0.005×0.8

0.004

18) 0.006×0.32

0.00192

2.6 - Dividing Decimals

19) $96.8 \div 0.32$

302.5

20) $52 \div 0.13$

400

12.1 - Rational Numbers

Write the rational number as a decimal.

21) $-\frac{5}{8}$

-0.625

22) $-\frac{13}{6}$

$-2.\overline{16}$

23) $-5\frac{7}{16}$

-5.4375

Write the decimal as a fraction or a mixed number in simplest form.

24) -0.35

$-\frac{7}{20}$

25) -5.8

$-5\frac{4}{5}$

26) 24.125

$24\frac{1}{8}$

12.2 - Adding Rational Numbers

27) $-18\frac{3}{8} + 16\frac{1}{4}$

$-2\frac{1}{8}$

28) $-12\frac{3}{4} + \left(-11\frac{1}{3}\right)$

$-24\frac{1}{12}$

29) $-7.3 + (-3.6)$

-10.9

12.3 - Subtracting Rational Numbers

30) $4.5 - 11.2 \div 2^3$

3.1

31) $4.825 - 8.36$

-3.535

32) $-15\frac{3}{5} - 9\frac{2}{3}$

$-25\frac{4}{15}$

12.4 - Multiplying & Dividing Rational Numbers

33) $-2\frac{3}{5} \times \frac{2}{3} - 1\frac{4}{5}$

$-3\frac{8}{15}$

34) $-4\frac{1}{6} \cdot \left(-3\frac{3}{5}\right)$

15

Problem Solving

- 35) The gas mileage of an SUV is 15.25 miles per gallon. The gas mileage of a car is 26.4 miles per gallon. How much farther will the car travel if both vehicles use 12.5 gallons of gas?

$$\text{Car: } 12.5 \times 26.4 = 330 \text{ mi}$$

$$\text{SUV: } 12.5 \times 15.25 = 190.625 \text{ mi}$$

139.375 miles
more

- 36) A hamburger stand sells hamburgers for \$3.87. In one day, the stand made \$433.44. How many hamburgers were sold?

112 hamburgers

- 37) Your friend is 1.2 times taller than you. Your friend is 64.5 inches tall. How tall are you?

53.75 inches

- 38) A bottle contains 16.9 fluid ounces of water. After you take a sip, the bottle is $\frac{9}{10}$ full. How many fluid ounces is your sip?

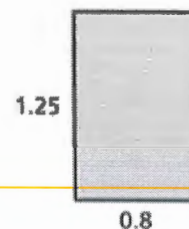
1.69 fl oz.

- 39) How much will a bag of chips and a drink cost you when you have a coupon for 75 cents off the total price?

Item	Price
Chips	\$1.29
Drink	\$0.89

\$1.43

- 40) Find the area of the rectangle.



1 unit²