

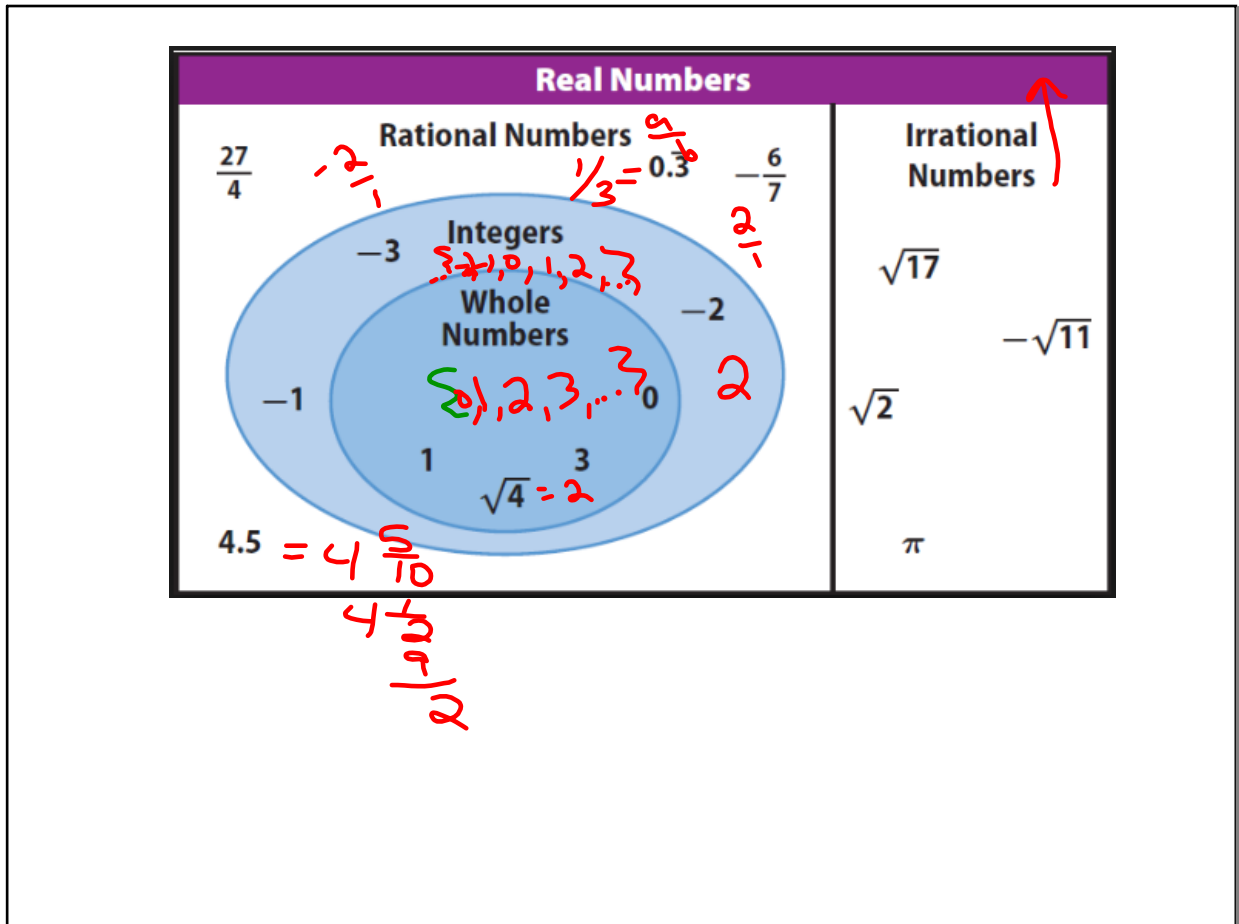
Complete in preparation for the quiz on Thursday. All problems will come directly from those listed below:

- pg. 321 (1 - 18)
- pg. 322 (1 - 3, 5, 7, 8)
- pg. 324 (7 - 16)
- pg. 325 (1 - 8)
- pgs. 327 - 328 (2 - 4, 8, 10, 11 - 14, 16 - 18)

Tear pages 1-32 out of your book and put into your 3-ring binder (if you have one).

Reminder for Mrs. Smith
Hand back "Recovery Packets"

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pg. 325

Write each number in scientific notation. (Lessons 10.2, 10.3)

1. 25,500,000 2.55×10^7 2. 0.00734 7.34×10^{-3}

Write each number in standard notation. (Lessons 10.2, 10.3)

3. 5.23×10^4 52,300 4. 1.33×10^{-5} 0.0000133

Simplify each expression. (Lessons 10.1, 10.4)

5. $(9 - 7)^3 \cdot 5^0 + (8 + 3)^2$
 $(2)^3 \cdot 1 + (11)^2$
 $8 + 121$
129

6. $\frac{(4 + 2)^2}{[(9 - 3)^3]^2}$
 $\frac{6^2}{(6^3)^2}$
 $\frac{6^2}{6^6} = \frac{36}{46,656} = \frac{1}{1296}$

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LESSON

pg.7

1.1 Algebraic Expressions

Add and subtract algebraic expressions and use distributive property to write equivalent expressions.

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An algebraic expression is a mathematical statement constructed from at least one variable and possibly one or more operation symbols and one or more numbers. The table shows examples and nonexamples of algebraic expressions.

Algebraic Expressions	
Examples	$x, 3y - 5, -2xy, z^2 + 1$
Nonexamples	$7, 20 \div (4 + 1), 4x = 16$

Note that an algebraic expression must not contain an equal sign. A mathematical statement that contains an equal sign, such as $4x = 16$, is an equation.

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Write a Word Expression for an Algebraic Expression

There are different phrases that you can use to represent algebraic expressions.

Algebraic Expression	Word Expression
$2 + n$	the sum of 2 and n 2 increased by n 2 plus n 2 more than n $n+2$ a number n plus 2
$n - 6$	the difference of n and 6 n decreased by 6 n minus 6 6 less than a number n
xyz	the product of $x, y,$ and z x times y times z
$\frac{45}{a}$	the quotient of 45 and a 45 divided by a

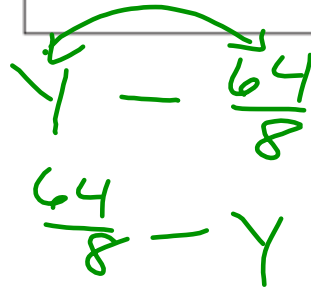


switch word

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Sometimes there is more than one operation in an expression.

Word Expression	Algebraic Expression
the difference of the product of a and b and 7 subtraction multiplication	$ab - 7$
y less than the quotient of 64 and 8 division subtraction	$\frac{64}{8} - y$



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EXAMPLE 1



FL 7.EE.1.1, 7.EE.1.2

Jill and Kyle get paid per project. Jill is paid a project fee of \$25 plus \$10 per hour. Kyle is paid a project fee of \$18 plus \$14 per hour. Write an expression to represent how much a company will pay to hire both to work the same number of hours on a project.

STEP 1

Write expressions for how much the company will pay each person. Let h represent the number of hours they will work on the project.

Jill: $\$25 + \$10h$

Kyle: $\$18 + \$14h$

Fee + Hourly rate \times Hours

Fee + Hourly rate \times Hours

STEP 2

Add the expressions to represent the amount the company will pay to hire both.

$25 + 10h + 18 + 14h$ Combine their pay.

$= 25 + 18 + 10h + 14h$ Use the Commutative Property.

$= 43 + 24h$ Combine like terms.

The company will pay $43 + 24h$ dollars to hire both Jill and Kyle.

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Four less than three times the number of egg orders and six more than two times the number of waffle orders.

$$4 - 3e$$

$$\boxed{3e - 4}$$

$$2w + 6$$

OR

$$6 + 2w$$

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Adding Like Terms (pg.7)

YOUR TURN

Simplify each expression.

2. $(3x + \frac{1}{2}) + (7x - 4\frac{1}{2})$

$$(3x + 7x) + (\frac{1}{2} - 4\frac{1}{2})$$

$$10x - 4$$

OR

$$10x + (-4)$$

3. $(-0.25x - 3) - (1.5x + 1.4)$

$$-0.25x - 3 - 1.5x - 1.4$$

$$(-0.25x + 1.5x) + (-3 - 1.4)$$

$$-1.75x - 4.4$$

OR

$$-1.75x + (-4.4)$$

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Using the Distributive Property pg.8

You can use the Distributive Property to remove the parentheses from an algebraic expression like $3(x + 5)$. Sometimes this is called "simplifying" or "expanding" the expression. Multiply the quantity in front of parentheses by each term within parentheses: $3(x + 5) = 3 \cdot x + 3 \cdot 5 = 3x + 15$.

YOUR TURN

Simplify each expression.

5. $7(9k + 6m)$

$$7(9k) + 7(6m)$$

$$\boxed{63k + 42m}$$

6. $0.2(3b - 15c)$

7. $\frac{2}{3}(6e + 9f - 21g)$

$$\frac{2}{3} \cdot 6e + \frac{2}{3} \cdot 9f - \frac{2}{3} \cdot 21g$$

$$\boxed{4e + 6f - 14g}$$

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HW - Due Friday (test tomorrow)

Textbook page 10

1 - 4 (you may show work on page)

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