



1.1

# Algebra 1 Agenda

				Stamp
Monday	8/24/2015	Objective:	Introduction to Algebra & Notebook Set Up	
		Assignment:	Information Sheet/Calculator Agreement	
Tuesday	8/25/2015	Objective:	Writing Expressions and Equations	
		Assignment:	Practice #1-7	
Wednesday	8/26/2015	Objective:	Writing Inequalities	
		Assignment:	Practice #1-9	
Thursday	8/27/2015	Objective:	Solving Multi-Step Equations	
		Assignment:	Practice #1-11	
Friday	8/28/2015	Objective:	Quiz!!	
		Assignment:	HW 1.1 Due!	

# Be...work

Week of \_\_\_\_\_ - \_\_\_\_\_

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Monday

thursday

**Tuesday**

Friday

Wednesday

**CHALLENGE**

## Algebra I - Unit 1: Topic 1 – Writing Expressions and Equations

### Practice – Writing Expressions and Equations

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Name \_\_\_\_\_ Date \_\_\_\_\_ Pd. \_\_\_\_\_

1. Raquel earns \$150 per week at Forever 21 plus 15% commission on her total sales.
  - A. Write an expression to represent Raquel's commission on  $x$  total sales.
  - B. Write an equation to find her total sales if her total earnings for the last two weeks were \$500.
  
2. Angelina rents a bounce house for a birthday party for a delivery fee of \$100 plus a rental fee of \$20 per hour.
  - A. Write an expression for the cost of renting the bounce house for  $x$ , the number of hours.
  - B. Write an equation if the total charge was \$220.
  
3. Nate has written 4 paragraphs of an essay for his English class so far. He can write a paragraph every  $\frac{2}{3}$  of an hour. Write an expression for the number of paragraphs in Nate's essay after  $h$ , hours.
  
4. Two angles are complementary. The larger angle is 6 more than twice the smaller angle. Write an equation to find the measure of each angle. (Hint: Draw a picture)
  
5. Brock is six feet tall. He climbs a ladder to paint some trim on his house. For each rung that he climbs, Brock is 1.2 feet higher above the ground. Which expression could you use to calculate the distance from the top of Brock's head to the ground if  $r$  represents the number of ladder rungs he has climbed?  

A  $1.2r + 6$ B  $1.2r$ C  $r + 6$ D  $6r + 1.2$
  
6. An object's weight on Mars is 38% of its weight on Earth. If an object weighs  $p$ , pounds on Earth, write an expression for its weight on Mars.
  
7. Which situation is best represented by the algebraic expression  $200 + \frac{x}{4}$ ?
  - A Renee earned \$200 creating a website and a 20% advance on the next website she creates for the same company.
  - B Joe had \$200 and spent a fourth of it on a Hawaiian Falls season pass
  - C Skip is watching his calorie intake. He ate a 200 calorie breakfast bar and shared a pizza with 3 of his friends.
  - D There is a \$200 set up fee for making T-shirts and a fourth of the cost is split between anyone ordering a shirt.

## Algebra I - Unit 1: Writing Inequalities

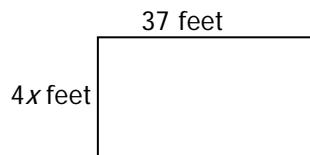
### Practice - Writing Inequalities

Name \_\_\_\_\_ Date \_\_\_\_\_ Per \_\_\_\_\_

Write each statement in algebraic form.

1. The difference of a number and four is greater than forty-two.
2. Three-fourths of a number is at most -18.
3. A number divided by 7 is at least negative three.
4. Negative four times a number is less than 204.
5. The quotient of twice a number and 7 is more than 21
6. The product of a number and twelve is 36.

7. The perimeter of the rectangle below is at least 814 feet.



8. The mayor of Ali's town chose 160 students from her school to attend a city debate. This is no more than  $\frac{1}{4}$  of the students in Ali's school. Which inequality represents the least number of students,  $n$ , who could attend Ali's school?

A  $160 \geq \frac{1}{4}n$

B  $160 \leq \frac{1}{4}n$

C  $160 < \frac{1}{4}n$

D  $160 > \frac{1}{4}n$

9. Claudia can spend up to \$1500 on paper for her business this year. Paper costs \$32 per box. Which inequality represents the number of boxes of paper  $p$  she can buy this year?

A  $32p \leq 1500$

B  $32 + p \geq 1500$

C  $32p \geq 1500$

D  $32 + p \leq 1500$

## Algebra I - Unit 1: Topic 1 – Solving Multi Step Equations

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### Practice – Solving Multi Step Equations

Name \_\_\_\_\_ Date \_\_\_\_\_ Pd. \_\_\_\_\_

**Solve each equation and check your answer. Be sure to show all work.**

1.  $\frac{2}{5}x - 1 = 5$

2.  $12 = -7f - 9$

3.  $\frac{-3n+6}{-6} = -9$

4.  $0.4m - 0.7 = 0.22$

**Define a variable, write an equation, solve and check each problem. Write your answer in a complete sentence.**

5. The area of a small triangle is 25 square inches. This is four square inches more than a fifth of a larger triangle's area. Find the area of the larger triangle.
  
  
  
  
  
  
  
  
  
  
6.  $\angle A$  and  $\angle B$  are supplementary.  $\angle A$  has a measure of  $3x^\circ$  and  $\angle B$  has a measure of  $2x^\circ$ . Find the measure of  $\angle B$ .
  
  
  
  
  
  
  
  
  
  
7. A student wrote a list of three consecutive even integers. If the sum of the integers is 54, what is the middle integer?

## Algebra I - Unit 1: Topic 1 – One and Two Step Equations

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8. For the equation  $\frac{x}{3} = 15$  a student found the value of  $x$  to be 5.
- Explain the error.
  - What is the correct answer?
9. Steve is training for a marathon. He has run the following distances so far this week: 5 miles, 8.5 miles, 3.5 miles and 9 miles. He is going to run one more day this week. If Steve would like to average 7 miles for his training runs this week, how many miles should he run during his last run of the week?
10. A boat salesperson earns a 2.5% commission on the sale of each boat. If he earned \$462.50 in commission on the sale of a boat, how much did the boat sell for?
11. Which situation is best represented by  $x - 32 = 8$ ?
- Daniel has 32 baseball cards. Joseph has 8 less baseball cards than Daniel. How many baseball cards does Joseph have?
  - Logan withdrew \$32 from her bank account. After her withdrawal, her balance was \$8. How much was originally in her account?
  - Room A contains 32 desks. Room B has 8 fewer desks. How many desks are in room B?
  - Janelle bought a bag of 32 glue sticks for a project. She used 8 glue sticks. How many glue sticks does she have left?