# Western High School Algebra I & Algebra I Honors Summer Assignment

Add, subtract, multiply, or divide.	Simplify each expression.		
<b>1.</b> 623 − 432 <b>2.</b> 8 × 23	<b>25.</b> $5(12+g)$ <b>26.</b> $(r-6)9$		
<b>3.</b> 882 ÷ 14 <b>4.</b> 178 + 842			
Add or subtract.	Find each unit rate.		
<b>5.</b> 43.21 + 16.8 <b>6.</b> 16.3 - 9.11	<b>27.</b> \$30 for 8 students		
	<sup>ex</sup> <b>28.</b> 96 packages in 6 days		
Multiply.	<b>29.</b> Mario has saved \$165. At the end of each week he saves an additional \$15.		
<b>7.</b> $2.3 \times 0.6$ <b>8.</b> $6.4 \times 3.2$	Write an equation representing the		
	total amount $S$ he has saved at the end of any given week $w$ .		
Divide.	Identify the point on the number line that matches each number.		
<b>9.</b> $25.6 \div 8$ <b>10.</b> $0.84 \div 0.6$	<b>30.</b> -0.5 <b>31.</b> 2.5		
	<b>32.</b> -3  A B C D E		
	A B C D E -3 -2 -1 0 1 2 3		
Multiply or divide. Give your answer in Compare. Write $<$ , $>$ , or $=$ .			
simplest form.	<b>33.</b> $\frac{5}{12}$ $\boxed{\frac{3}{4}}$ <b>34.</b> $\frac{4}{20}$ $\boxed{20\%}$		
<b>11.</b> $\frac{2}{9} \times \frac{3}{4}$ <b>12.</b> $\frac{5}{9} \div 5$	12 — 4 20 —		
Add or subtract. Give your answer in	Evaluate each expression for the given		
simplest form.	value of the variable.		
<b>13.</b> $\frac{3}{4} + \frac{5}{12}$ <b>14.</b> $1\frac{2}{9} - \frac{4}{9}$	<b>35.</b> $5w - 16$ for $w = 6$		
	<b>36.</b> $-8 - \frac{2}{3}h$ for $h = 6$		
Add or subtract.	Solve each equation.		
<b>15.</b> $-54 + 35$ <b>16.</b> $-18 - (-30)$	<b>37.</b> $5g = 135$ <b>38.</b> $x - 16 = 8$		
Multiply or divide.	Simply each expression by combining like terms.		
<b>17.</b> $15(-4)$ <b>18.</b> $-30 \div (-6)$	<b>39.</b> $3b - 32 + 4b$		
Evaluate each expression.	<b>40.</b> -3f + 4t - 3t + 6f <b>Solve each equation.</b>		
<b>21.</b> $12 + 3 \div 3$ <b>22.</b> $3 + 2 \times 4^2$	-		
	<b>41.</b> $4x + 16 = 40$ <b>42.</b> $\frac{x}{5} - 9 = 1$		
<b>23.</b> $4+6\times 10-2$ <b>24.</b> $25\times (4+5)$			

#### Solve each proportion.

**43.** 
$$\frac{3}{4} = \frac{z^2}{12}$$

**44.** 
$$\frac{10}{30} = \frac{6}{t}$$

All Algebra I students must know the facts below. Please complete the table and memorize.

#### **45.** Generate ordered pairs for the function for x = -2, -1, 0, 1, 2.

$$y = 5x + 3$$

x	y
<b>-2</b>	
-1	
0	
1	
2	

$1^2 = 1 \times 1$	$2^2 = 2 X 2$	3 <sup>2</sup> =	<b>4</b> <sup>2</sup> =
Answer:	Answer:	Answer:	Answer:
1	4		
5 <sup>2</sup> =	6 <sup>2</sup> =	<b>7</b> <sup>2</sup> =	8 <sup>2</sup> =
Answer:	Answer:	Answer:	Answer:
9 <sup>2</sup> =	10 <sup>2</sup> =	11 <sup>2</sup> =	12 <sup>2</sup> =
Answer:	Answer:	Answer:	Answer:
13 <sup>2</sup> =	14 <sup>2</sup> =	15 <sup>2</sup> =	16 <sup>2</sup> =
Answer:	Answer:	Answer:	Answer:
17 <sup>2</sup> =	18 <sup>2</sup> =	19 <sup>2</sup> =	20 <sup>2</sup> =
Answer:	Answer:	Answer:	Answer:

### Graph each point on the same coordinate grid.

**46.** 
$$A(-3, -4)$$
 **47.**  $B(2, 0)$ 

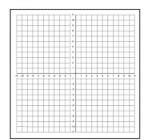
**47.** 
$$B(2,0)$$

# **Algebra I Honors students -**

51. 
$$(2x^2y^4)^2$$

52. 
$$(2pq^2r^3)(5q^3r^4s)$$

## **48.** Graph the function y = 2x + 1.



53. Which equations are equivalent?

I. 
$$2x - 3 = 5x + 7$$

II. 
$$2x - 2 = 5x - 12$$

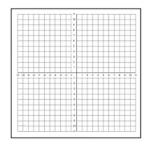
III. 
$$2x + 3 = 5x - 7$$

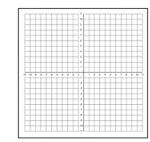
IV. 
$$4x - 6 = 10x + 14$$

### Solve and graph each inequality.

**49.** 
$$b-8 \ge -11$$

**50.** 
$$-\frac{3}{4}x > 3$$





A company wishes to produces and sell calculators. The company invests \$500,000 in starting the business and calculates each calculator will cost a further \$20.00 to make. They decide to sell each calculator at a price of \$25.00. What is the least number of calculators that need to be sold in order to make a profit?

B. 100,000

D. 20,000

55. George cut 
$$2 / 3$$
 of the pie and put that giant piece on his plate. Then he ate  $1 / 4$  of that piece. What fraction of the original pie did George eat?