

## Week 1 Algebra 1 Assignment:

Day 1: pp. 4-5 #1-9 odd, 11-23

Day 2: pp. 8-9 #1-19 odd, 21-32, 35-39

Day 3: pp. 12-13 #1-25 odd, 26-34, 39-43

Day 4: pp. 16-17 #1-28, 32-36

Day 5: pp. 22-23 #1-15 odd, 16-28, 32-36

### Notes on Assignment:

#### Page 4-5:

#### **Work to show:**

#1-9: Draw a number line.

#11-18: Answers only

#19-23: Show work for finding the midpoint.

#19-23: Finding the midpoint is like finding the average. Add the 2 numbers together and divide by 2.

#### Pages 8-9:

#### **Work to show:**

All problems: Answers only is fine for all of these.

#11-20: Remember the absolute value bathtub. Whatever number goes in, it always comes out "clean."

#21-24: Absolute value brackets are grouping symbols. You must do the calculation inside **before** you take the absolute value. (Never throw 2 kids into the tub together!)

#27-30: When you see absolute value brackets, do not just go through and make every minus sign a plus. #27, 29, and 30 are subtraction problems.

#31-32: If these don't make sense to you, give yourself an example with a real number. For #31, for example, compare the absolute value of 7 and its opposite. What is true?

## Pages 12-13:

### **Work to show:**

#1-17: Show calculations for any problems with 3 digits or more

#21-25: Show work for finding the midpoint.

#26-43: Answers only is ok.

#1-15: When you add and the signs are the same, you add their absolute values. The sign on the answer will be the same as the sign on the original numbers. When you add a positive and a negative number, you actually subtract. Look at the absolute value of the 2 numbers and subtract as you usually would. The sign on your answer will be the same as the sign on the number whose absolute value was bigger. (i.e. you compare the numbers without the signs. The one that is bigger dominates the sign on the answer.)

#26-34: The directions “Translate into symbols. Do not calculate” apply only to these problems.

#43: Try a few examples with real numbers and see if  $|a + b| = |a| + |b|$ . Use both positive and negative numbers.

## Pages 16-17:

### **Work to show:**

All problems: Show work as needed.

#1-18: You should have memorized the sentence “To subtract a number, we add its opposite.”

- If you subtract a positive number, like 7, it is the same as adding its opposite, which in this case would be -7. So,  $4 - 7$  becomes  $4 + -7$ . You can change every “- “ into “+ -“ in your problem.
- If you subtract a negative number, like -5, it is the same as adding its opposite, which in this case would be +5. So,  $9 - (-5)$  becomes  $9 + 5$ . You can change every “- - “ into “++” (or just +).

#20-24: Remember that one of these words or phrases that we translate to subtraction does not translate directly. It goes out the back door.

#34: Try a few examples with real numbers and see if  $|a - b| = |a| - |b|$ . Use both positive and negative numbers.

Pages 22-23:

**Work to show:**

#1-15: Answers only is ok for single digit numbers. Show multiplication for problems involving 2-digit numbers or larger.

#16-20: Show calculations.

#26-28: Show work.

#32-36: Answers only is ok.

#1-20: Remember that if you multiply an odd number of negatives, the answer is negative. An even number of negatives gives a positive product.