Name _____ Date _____

Skills Maintenance

Inequalities

Activity 1

Select the inequality that best represents each of the word statements.

1. Alicia is at least 12 years old. If a is Alicia's age:
   - **(a)** $12 > a$
   - **(b)** $a \leq 12$
   - **(c)** $a \geq 12$
2. The temperature today will not be above 50. If t is the temperature:
   - **(a)** $t \leq 50$
   - **(b)** $t \geq 50$
   - **(c)** $t < 50$
3. Becca got a 95 on her last test. Lisa was the only one to get a higher score. If l is Lisa's score:
   - **(a)** $l \leq 95$
   - **(b)** $l > 95$
   - **(c)** $l \geq 95$
4. Michael is younger than Blake. Blake is 15. If m represents Michael's age:
   - **(a)** $m < 15$
   - **(b)** $m \leq 15$
   - **(c)** $m \geq 15$

Name _____ Date _____

Unit Review

Inequalities

Activity 1

Tell whether each of the statements is True or False. Circle the correct answer.

Model

If $x > 5$, a possible value of x is 2.

True or (False)

1. If $x < 17$, a possible value of x is 20.

   True or False

2. If $3 > y$, a possible value of y is 3.

   True or False

3. If $w \leq 3$, a possible value of w is 3.

   True or False

4. If $z \geq 125$, a possible value of z is 100.

   True or False

5. If $40 \leq A \geq 60$, a possible value of A is 40.

   True or False

6. If $103 \leq m$, a possible value of m is 104.

   True or False

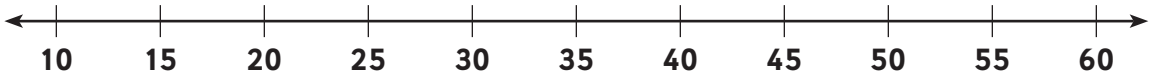
Name _____ Date _____

Activity 2

Write inequalities based on the word problems. Then draw the inequalities on the number line.

1. Jenny runs a volunteer program after school. She has about 50 volunteers, but needs to know how old they are so she can assign them to specific activities. Jenny figures out that most of the volunteers are from 15 to 22 years old or from 40 to 60 years old.

_____

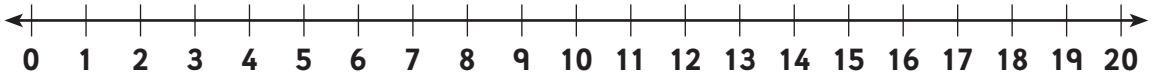


2. Ralph is ordering a shipment of peppers for his restaurant. He needs to find a ballpark number for how many peppers people eat a week. When he looks at his lists, he sees that in Week 1, 106 peppers were eaten, and in Week 2, 53 peppers were eaten.

_____

3. You're about to study to take your final exam in math. You want to find a ballpark range of hours to study, so you ask the people who have scored the highest on previous tests how many hours they studied. You find that the people who scored the highest studied between 7 and 15 hours.

_____

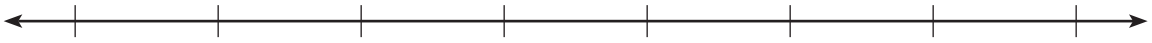


Name _____ Date _____

Activity 3

These problems require you to create different kinds of number lines. Make sure that you think about the scale for the number line before you draw it. Some of the problems only use one range of values. Other problems require you to show more than one range of values for a variable.

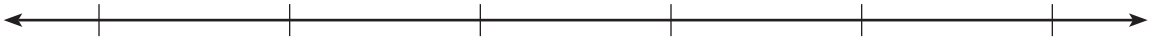
1. Copper melts at 1,985 degrees. Stainless steel melts at 2,600 degrees. Cast iron melts at a temperature greater than copper and less than stainless steel. Let j = the temperature that cast iron melts.



2. Ms. Fanning's social studies class just took a big test. After grading the test, Fanning told the class, "You either did very well or very poorly on the test. If you did poorly, you'll have to take a make-up test. The scores on the test were either below 65 or above 90." Let x = the grades on the test.

3. Jana Cooper is practicing for the 100-meter dash. During practice today, she ran the 100 meters 8 times. Her fastest time was 11.5 seconds and her slowest time was 14.5 seconds. All of her other runs were in between these two times. Let r = the different times that Jana ran in practice today.

4. Commercial airlines fly at different altitudes in order to avoid rough weather and so that they are at a different altitude than planes flying in another direction. Flight 448 from Boston to Miami flew part of the way between 28,000 and 32,000 feet and the rest of the way from 35,000 to 38,000 feet. Let p = the flying altitude of Flight 448.



Name _____ Date _____

Unit Review

Working With Rates

Activity 1

Complete the proportions to find the unit rates.

1. 10 apples for $4.00. The unit rate is:

   $\frac{\text{Number of apples}}{\text{Cost}}$ $\frac{10}{\$4} = \frac{1}{x}$

   How much for one apple? _____

2. 15 packs of fruit snacks for $3.00. The unit rate is:

   $\frac{\text{Number of packs}}{\text{Cost}}$ $\frac{15}{\$3} = \frac{1}{y}$

   How much for one pack of fruit snacks? _____

3. 3 pairs of jeans for $150. The unit rate is:

   $\frac{\text{Number of pairs of jeans}}{\text{Cost}}$ $\frac{3}{\$150} = \frac{1}{a}$

   How much for one pair of jeans? _____

4. 2 CDs cost $40. The unit rate is:

   $\frac{\text{Number of CDs}}{\text{Cost}}$ $\frac{2}{\$40} = \frac{1}{b}$

   How much for one CD? _____