Unit 6 Practice Test: Equations & Inequalities

Opening exercise:

"The amount of money I have in my pocket is less than $5 but greater than $4."

    a.   One possible value for the amount of money in my pocket is _____.

    b.   Write an inequality statement comparing the possible value of the money in my pocket to $4.

    c.   Write an inequality statement comparing the possible value of the money in my pocket to $5.

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1. Graph your answer from the Opening Exercise, part (a) on the number line below.

2. Also graph the points associated with 4 and 5 on the number line.

3. Explain in words how the location of the three numbers on the number line supports the inequality statements you wrote in the Opening Exercise, parts (b) and (c).

4. Write one inequality statement that shows the relationship among all three numbers.

5.

Write a real-world situation that is represented by the following inequality: $-19 < 40$. Explain the position of the numbers on a number line.

6. Solve the following and graph the answers on a number line.

    a. $x + 3 > 56$ b. $x - 3 \geq 56$ c. $3x < 56$ d. $\frac{x}{3} \leq 56$

Use inverse operations to isolate the variable.

1. $m + 5 = 6$

2. $25 = d - 10$

3. $56 \geq 2e$

4. $\frac{h}{5} \geq 12$

5. $45 > h + 29$

6. $4a \leq 16$

7. $3x = 24$