

3-2 Solving Inequalities Using Addition or Subtraction

Question: If you add or subtract the same number from both sides of an **INEQUALITY**, is it still true?

Complete the following addition and subtraction problems as shown. Be sure to include the correct inequality symbol.

1.
$$\begin{array}{r} -1 < 3 \\ -5 \quad -5 \end{array}$$

2.
$$\begin{array}{r} 4 > 0 \\ +3 \quad +3 \end{array}$$

3.
$$\begin{array}{r} -2 < 4 \\ +2 \quad +2 \end{array}$$

4.
$$\begin{array}{r} 5 > -2 \\ -6 \quad -6 \end{array}$$

Answer?

Let's use this idea to help us solve inequalities and graph their solutions:

5. $x - 15 > -12$

6. $n - 5 < -3$

7. $t + 3 \leq -2$

8. $-1 \geq y + 12$

9. Suppose the hard drive on your computer has a capacity of 250 GB. You used 115 GB, but you want to save some home videos to your hard drive. What are the possible sizes of the home video collection you can save?

Book Work: p 174: 13-27 odd, 35, 43, 69, 71, 73