

Lesson 23: True and False Number Sentences

Classwork

Opening Exercise

Determine what each symbol stands for and provide an example.

Symbol	What the Symbol Stands For	Example
=		
>		
<		
≤		
≥		

Example 1

For each equation or inequality your teacher displays, write the equation or inequality, and then substitute 3 for every x . Determine if the equation or inequality results in a true number sentence or a false number sentence.

Exercises

Substitute the indicated value into the variable, and state (in a complete sentence) whether the resulting number sentence is true or false. If true, find a value that would result in a false number sentence. If false, find a value that would result in a true number sentence.

1. $4 + x = 12$. Substitute 8 for x .

2. $3g > 15$. Substitute $4\frac{1}{2}$ for g .

3. $\frac{f}{4} < 2$. Substitute 8 for f .

4. $14.2 \leq h - 10.3$. Substitute 25.8 for h .

5. $4 = \frac{8}{h}$. Substitute 6 for h .

6. $3 > k + \frac{1}{4}$. Substitute $1\frac{1}{2}$ for k .

7. $4.5 - d > 2.5$. Substitute 2.5 for d .

8. $8 \geq 32p$. Substitute $\frac{1}{2}$ for p .

9. $\frac{w}{2} < 32$. Substitute 16 for w .

10. $18 \leq 32 - b$. Substitute 14 for b .