

Classwork

Opening Exercise: State whether each number sentence is true or false. If the number sentence is false, explain why.

		True or False??	If you wrote False, explain why.
1.	$4 + 5 > 9$	False	$4 + 5 = 9$
2.	$3 \cdot 6 = 18$	True	
3.	$32 > \frac{64}{4}$	True	
4.	$78 - 15 < 68$	True	
5.	$22 \geq 11 + 12$	False	$11 + 12 = 23$ 22 is Not ≥ 23

Example 1

Write true or false if the number substituted for g results in a true or false number sentence.

Substitute g with	$4g = 32$	$g = 8$	$3g \geq 30$	$g \geq 10$	$\frac{g}{2} > 2$	$g > 4$	$30 \geq 38 - g$	$g \geq 8$
8	true	true	false	false	true	true	true	true
4	false	false	false	false	false	false	false	false
2	false	false	false	false	false	false	false	false
0	false	false	false	false	false	false	false	false
10	false	false	true	true	true	true	true	true

Exercises Complete the following problems in pairs. State when the following equations and inequalities will be true and when they will be false.

	Problem	When will the equation or inequality be true?	When will the equation or inequality be false?
1.	$15c > 45$	$c > 3$	$c \leq 3$
2.	$25 = d - 10$	$d = 35$	$d \neq 35$

	Problem	When will the equation or inequality be true?	When will the equation or inequality be false?
3.	$56 \geq 2e$	$e \leq 28$	$e > 28$
4.	$\frac{h}{5} \geq 12$	$h \geq 60$	$h < 60$
5.	$45 > h + 29$	$h < 16$	$h \geq 16$
6.	$4a \leq 16$	$a \leq 4$	$a > 4$
7.	$3x = 24$	$x = 8$	$x \neq 8$

Identify all equality and inequality signs that can be placed into the blank to make a true number sentence.

1. $15 + 9 \underline{=} 24$

2. $8 \cdot 7 \underline{>} 50$

3. $\frac{15}{2} \underline{<} 10$

4. $34 \underline{=} 17 \cdot 2$

5. $18 \underline{<} 24.5 - 6$