Name: _____ Single Variable

Introduction to Inequalities

An inequality is a pair of expressions or numbers that are not equal.

You can use these signs to express an inequality:

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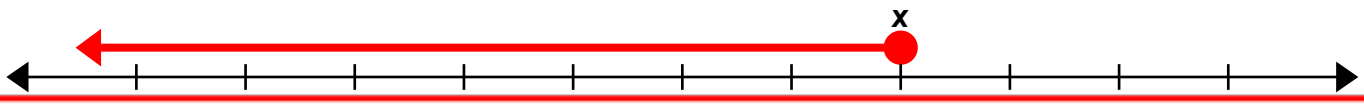
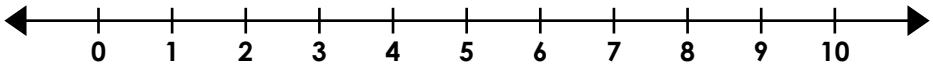
When you solve an inequality, you need to show all of the values that make the statement true. One way to do this is by graphing the inequality on a number line.

examples: **x ≤ 7** (x is less than or equal to 7)

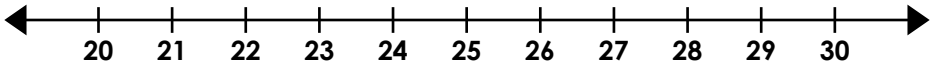


pencil or crayon.

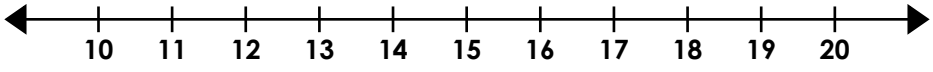
1. $a \geq 3$ word form: _____



2. $25 > q$ word form: _____



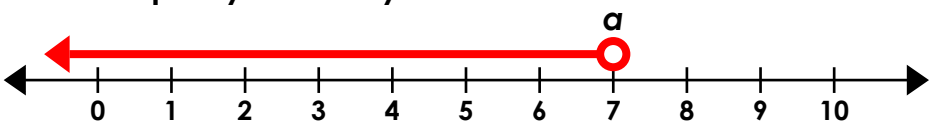
3. $t \leq 17$ word form: _____



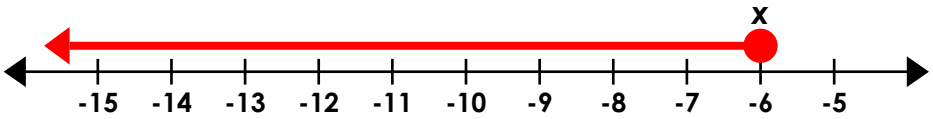
Name: _____ Single Variable

Introduction to Inequalities

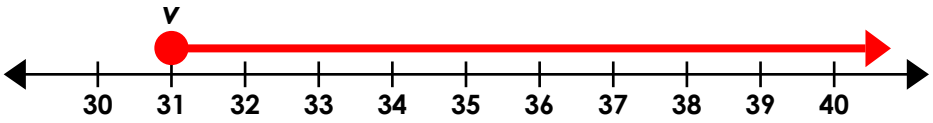
Write the inequality shown by each number line.

4. 

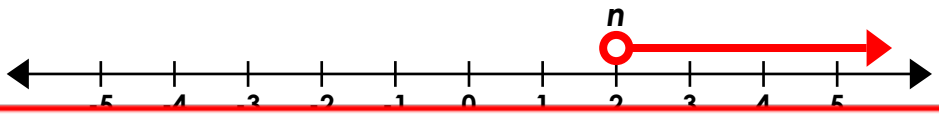
answer: _____

5. 

answer: _____

6. 

answer: _____

7. 

answer: _____

10. For the inequality $k > 7$, Chris says 6.5 and 6 are both solutions. Is he correct? Explain why or why not.

_____

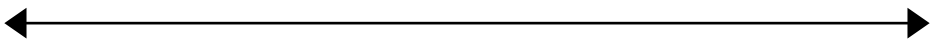
_____

11. For the inequality $y \leq 9$, Jazmín says 9 and 0 are both solutions. Is she correct? Explain why or why not.

_____

_____

12. Kavya is willing to spend $8 or less on a movie ticket. Show this amount on a number line.



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x

Introduction to Inequalities

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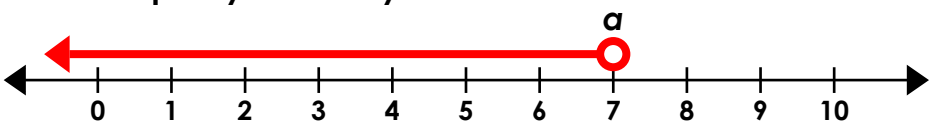
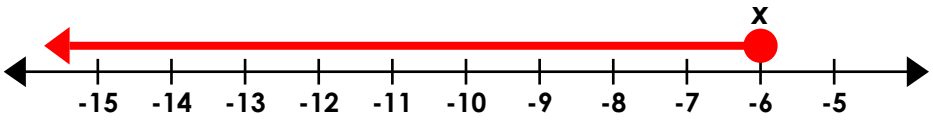
4.



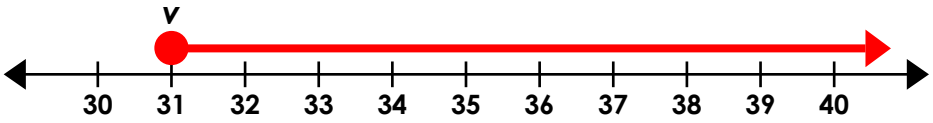
answer: $a < 7$ or $7 > a$

5.



answer: $x \leq -6$ or $-6 \geq x$

6.



answer: $v \geq 31$ or $31 \leq v$