Solve One and Two Step Inequalities

Solving One and Two Step Inequalities

1. Solve these inequalities

a) $x + 1 < 3$

b) $x - 1 \leq 3$

c) $3x \geq 6$

d) $3x \geq -12$

d) $8 > 4x$

e) $25 \geq 5x$

f) $5x \geq 7$

g) $5x \geq -5 - 2$

2. Match the number cards with their answers.

$y < 6.5$		$y \leq 5$
$3y \leq 15$		$3y < 21$
$7 > y$		$2y < 13$

3. What mistake has Ella made?

$$\div 3 \left\{ \begin{array}{l} 3x > -12 \\ x = -4 \end{array} \right. \div 3$$

Solving One and Two Step Inequalities

4. Solve these inequalities

a) $2t + 1 < 3$

b) $3t - 2 \geq 10$

c) $-12 \geq 3t - 3$

5. Max says,

> $3y + 1 < 4$ equals $1 > y$

Do you agree?

6. Solve for a

a) $3(a + 4) + 6 > 6$

b) $6 + 2(a - 4) < 6$

7. a) Do these inequalities have the same values for y?
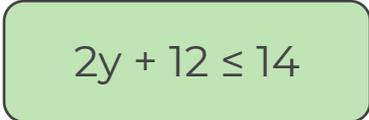
$2y + 12 \leq 14$
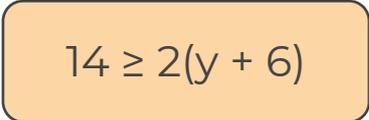
$14 \geq 2(y + 6)$

b) Solve for y

Answers

Solving One and Two Step Inequalities

1. Solve these inequalities

a) $x + 1 < 3$

$x < 2$

b) $x - 1 \leq 3$

$x \leq 4$

c) $3x \geq 6$

$x \geq 2$

d) $3x \geq -12$

$x \geq -4$

d) $8 > 4x$

$x < 2 \text{ or } 2 > x$

e) $25 \geq 5x$

$x \leq 5 \text{ or } 5 \geq x$

f) $5x \geq 7$

$x \geq \dfrac{7}{5}$

g) $5x \geq -5 - 2$

$x \geq -\dfrac{7}{5}$

2. Match the number cards with their answers.

y < 6.5	y ≤ 5
3y ≤ 15	3y < 21
7 > y	2y < 13

3. What mistake has Ella made?

$\div 3 \left\{ \begin{array}{l} 3x > -12 \\ x = -4 \end{array} \right\} \div 3$
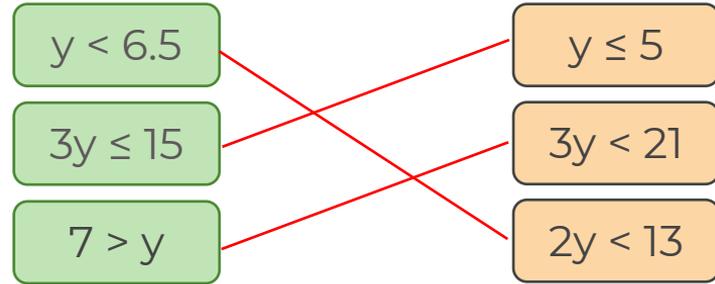
She used an equal sign. It should read $x > -4$

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Solving One and Two Step Inequalities

4. Solve these inequalities

a) $2t + 1 < 3$ $t < 1$

b) $3t - 2 \geq 10$ $t \geq 4$

c) $-12 \geq 3t - 3$ $-3 \geq t$ or $t \leq -3$

5. Max says,

> $3y + 1 < 4$ equals $1 > y$

Do you agree?   Yes, they show the same thing

6. Solve for a

a) $3(a + 4) + 6 > 6$ $a > -4$

b) $6 + 2(a - 4) < 6$ $a < 4$

7. a) Do these inequalities have the same values for y?   YES

> $2y + 12 \leq 14$

> $14 \geq 2(y + 6)$

b) Solve for y $y \leq 1$