

1 Match the description with the inequality.

$$t < 4$$

t is less than or equal to 4

$$t \geq 4$$

t is less than 4

$$t \leq 4$$

t is greater than 4

$$t > 4$$

t is greater than or equal to 4

2 Describe the inequalities in words.

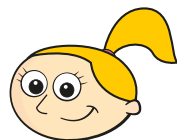
a) $h > -2$

b) $4 \geq m$

c) $-2 \leq w < 6$

3

If g is less than 4, the largest number that g can be is 3



Do you agree with Eva?

Explain your answer.

4 Write 5 values that satisfy each inequality.

a) $s < 8$

c) $2s < 8$

e) $1 \leq s < 8$

b) $s > 8$

d) $2s > 8$

5 Which value of m does not satisfy the inequality?

a) $m < 4$

0 6 -8 1.8

b) $-2 \leq m < 5$

-2 -1 2 5

c) $2m \geq -6$

12 0 -12 -3

d) $2m - 5 \leq 0$

-5 2.5 0 5

6 Solve the inequalities.

a) $x + 6 > 2$

b) $w - 12 \leq 2$

c) $2p \geq 8$

7 Filip is solving an equation.

$$\begin{array}{rcc}
 & & 2x + 3 = 17 \\
 -3 & \left\{ \begin{array}{l} \downarrow \\ \downarrow \end{array} \right. & \\
 \div 2 & \left\{ \begin{array}{l} \downarrow \\ \downarrow \end{array} \right. & \\
 & & 2x = 14 \\
 & & \downarrow \\
 & & x = 7
 \end{array}$$

Discuss how Filip can adapt this method to solve $2x + 3 < 17$

8 Solve the inequalities.

a) $5x + 2 > 27$

c) $4y - 3 < 15$

e) $12 \geq 7 + 4t$

b) $3x - 9 \leq 36$

d) $10 < 3p - 1$

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9 Find all of the integer values that satisfy the inequalities.

a) $-4 \leq 2k < 11$

b) $-2 < k + 3 \leq 8.5$

c) $-3 \leq 2k + 3 \leq 3$

10 Esther is solving an inequality. Find and correct her mistake.

$$\begin{array}{ccc}
 -8 & \begin{array}{c} \curvearrowright \\ \curvearrowleft \end{array} & -3x + 8 < -4 \\
 \div -3 & \begin{array}{c} \curvearrowright \\ \curvearrowleft \end{array} & -3x < -12 \\
 & & x < -4
 \end{array}$$

11 Solve the inequality $-6(5 - 2t) \geq -18$