

Linear Inequalities 1.5



Overview of problems

Example Set: A

Sketch the graph of the inequalities:

1. $x < 5$



2. $x \geq -7$



3. $x \leq 12$



4. $x > 4$



Example Set: B

Determine if the number is a solution of the inequality:

1. $x \geq -6$, 8

2. $x > 4$, 4

3. $2x - 3 \leq -10$, 5

4. $-5x + 10 > 2x + 1$, 2

5. $3(x + 2) \leq -4(x - 1)$, -3

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Overview of problems

Example Set: C

Solve the inequality and graph the solution:

1. $-2x < 10$ 

2. $3x \geq -15$ 

3. $6 + x < 13$ 

4. $-4x - 1 \geq 7$ 

Example Set: D

Solve the inequality and graph the solutions:

1. $-x + 8 < 2(x + 8)$ 

2. $\frac{1}{2}x + 2 \geq 6$ 

3. $-\frac{1}{3}x - 9 < -12$ 

4. $\frac{2}{5}(x + 10) \geq -3(x - 1)$ 

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Overview of problems

Example Set: A -**ANSWER KEY**

Sketch the graph of the inequalities:

1. $x < 5$



2. $x \geq -7$



3. $x \leq 12$



4. $x > 4$



Example Set: B- **ANSWER KEY**

Determine if the number is a solution of the inequality:

1. $x \geq -6$, 8 **solution**

2. $x > 4$, 4 **not a solution**

3. $2x - 3 \leq -10$, 5 **not a solution**

4. $-5x + 10 > 2x + 1$, 2 **not a solution**

5. $3(x + 2) \leq -4(x - 1)$, -3 **solution**

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Overview of problems



Example Set: C-ANSWER KEY

Solve the inequality and graph the solution:

1. $-2x < 10$ $x > -5$

2. $3x \geq -15$ $x \geq -5$

3. $6 + x < 13$ $x < 7$

4. $-4x - 1 \geq 7$ $x \leq -2$



Example Set: D-ANSWER KEY

Solve the inequality and graph the solutions:

1. $-x + 8 < 2(x + 8)$ $x > 8$

2. $\frac{1}{2}x + 2 \geq 6$ $x \geq 8$

3. $-\frac{1}{3}x - 9 < -12$ $x > 9$

4. $\frac{2}{5}(x + 10) \geq -3(x - 1)$ $x \geq -\frac{5}{17}$