

2.18

Solving a Linear Inequality: Problem Type 3

• Example 1

Solve the inequality $2 - 5x < 7$.

$$2 - 5x < 7$$

$$2 - 2 - 5x < 7 - 2 \quad \text{Subtract 2.}$$

$$-5x < 5$$

$$\frac{-5x}{-5} > \frac{5}{-5}$$

Divide by -5 . Be sure to reverse the sense of the inequality.

or $x > -1$

● ● ● CHECK YOURSELF 1

Solve the inequality.

$$4x - 9 \geq 5x$$

● ● ● CHECK YOURSELF ANSWER

1. $x \leq -9$.

2.18 Exercises

Name _____

Section _____

Date _____

A N S W E R S

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

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11. _____

12. _____

Solve the following inequalities.

1. $-6x \geq 18$

2. $-9x < 45$

3. $-10x < -60$

4. $-12x \geq -48$

5. $-12x < 36$

6. $4 - 3x > 8$

7. $5 - 3x > 17$

8. $8 - 9x \leq 53$

9. $14 - 3x \geq 59$

10. $26 - 4x > -10$

11. $49 - 7x \leq 14$

12. $46 - 6x \geq 28$