



Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 1: Guided Practice (We Do)

**Materials:**

- Algebra Tiles (20 +1's, 10 +x's, 20 -1's, 10 -x's per pair of students taking turns using the tiles.)
- Equation mat (1 per student)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase with meaning. Then, use algebra tiles to find the solution.

|                          |                          |
|--------------------------|--------------------------|
| <p>1.</p> $3x + 4 = 10$  | <p>2.</p> $3x - 4 = 8$   |
| <p>3.</p> $-13 = 4x + 3$ | <p>4.</p> $4x - 1 = -13$ |



Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 1: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to solve each equation using algebra tiles.

|                      |                       |
|----------------------|-----------------------|
| 5.<br>$2x + 4 = 10$  | 6.<br>$2x + 4 = -10$  |
| 7.<br>$3x - 1 = -13$ | 8.<br>$3x - 1 = 14$   |
| 9.<br>$4x + 2 = -10$ | 10.<br>$4x - 2 = -10$ |



# Quick Check - Form A

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

**1.**

$$16 = 2x + 4$$

**2.**

$$3 - 4x = 11$$

**3.**

$$-5 + 3x = 10$$

**4.**

$$2(x + 5) = 30$$

**5.**

$$\frac{1}{4}(x - 3) = 20$$

**6.**

$$\frac{2}{3}x + 6 = -14$$

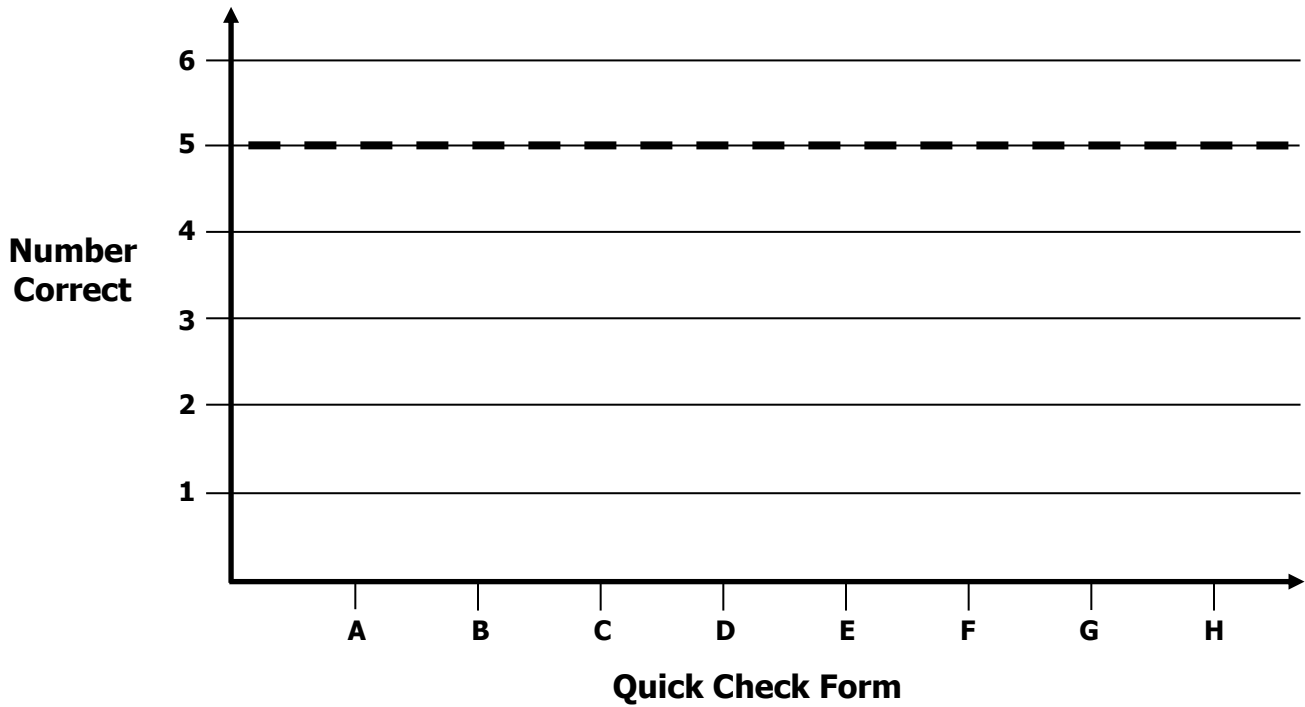


# Growth Chart

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Goal:** 5 out of 6 correct



| Intervention  | Date | Score |
|---------------|------|-------|
| Guided Review |      |       |
|               |      |       |
|               |      |       |
|               |      |       |
|               |      |       |
|               |      |       |
|               |      |       |
|               |      |       |



Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 2: Guided Practice (We Do)

**Materials:**

- Algebra Tiles (20 +1's, 10 +x's, 20 -1's, 10 -x's per pair of students taking turns using the tiles.)
- Equation mat (1 per student)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase with meaning. Then, use algebra tiles to find the solution.

|                          |                          |
|--------------------------|--------------------------|
| <p>1.</p> $3x + 6 = 12$  | <p>2.</p> $3x - 6 = 6$   |
| <p>3.</p> $-14 = 4x + 2$ | <p>4.</p> $4x - 2 = -14$ |



Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 2: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to solve each equation using algebra tiles.

|                      |                       |
|----------------------|-----------------------|
| 5.<br>$2x + 3 = 9$   | 6.<br>$2x + 3 = -11$  |
| 7.<br>$3x - 2 = -14$ | 8.<br>$3x - 2 = 13$   |
| 9.<br>$4x + 3 = -9$  | 10.<br>$4x - 3 = -11$ |



# Quick Check - Form B

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

**1.**

$$31 = 5x + 6$$

**2.**

$$2 - 3x = 11$$

**3.**

$$-10 + 5x = 40$$

**4.**

$$2(x + 9) = 24$$

**5.**

$$\frac{1}{5}(x - 2) = 8$$

**6.**

$$\frac{3}{4}x + 10 = -14$$

**Learning Target:** I will solve equations with more than one step

## Session 3: Guided Practice (We Do)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase with meaning. Then, complete the math drawing to find the solution.

|                           |                          |
|---------------------------|--------------------------|
| <p>1.</p> $13 = 4x + 1$   | <p>2.</p> $3x - 2 = -17$ |
| <p>3.</p> $2(x + 4) = 14$ | <p>4.</p> $-9 = 2x + 3$  |



**Learning Target:** I will solve equations with more than one step

## Session 3: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to solve each equation.

|                          |                           |
|--------------------------|---------------------------|
| <p>5.</p> $2x + 4 = 10$  | <p>6.</p> $3(x + 2) = -9$ |
| <p>7.</p> $14 = 3x - 1$  | <p>8.</p> $-13 = 3x - 1$  |
| <p>9.</p> $4x + 2 = -10$ | <p>10.</p> $4x - 2 = -10$ |



# Quick Check - Form C

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

**1.**

$$14 = 4x + 2$$

**2.**

$$5 - 2x = 19$$

**3.**

$$-7 + 4x = 21$$

**4.**

$$3(x + 4) = 24$$

**5.**

$$\frac{1}{3}(x - 6) = 7$$

**6.**

$$\frac{4}{5}x + 3 = -17$$

**Learning Target:** I will solve equations with more than one step

## Session 4: Guided Practice (We Do)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase with meaning. Then, complete the math drawing to find the solution.

|                           |                          |
|---------------------------|--------------------------|
| <p>1.</p> $14 = 4x + 2$   | <p>2.</p> $3x - 4 = -19$ |
| <p>3.</p> $2(x + 5) = 16$ | <p>4.</p> $-8 = 2x + 4$  |

**Learning Target:** I will solve equations with more than one step

## Session 4: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to solve each equation.

|                         |                           |
|-------------------------|---------------------------|
| <p>5.</p> $2x + 6 = 12$ | <p>6.</p> $3(x + 1) = -9$ |
| <p>7.</p> $11 = 3x - 4$ | <p>8.</p> $-14 = 3x - 2$  |
| <p>9.</p> $4x + 3 = -9$ | <p>10.</p> $4x - 3 = -11$ |



# Quick Check - Form D

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

|  |   |
|--|---|
| <p><b>1.</b></p> $20 = 6x + 8$             | <p><b>2.</b></p> $7 - 5x = 32$            |
| <p><b>3.</b></p> $-9 + 8x = 15$            | <p><b>4.</b></p> $4(x + 2) = 28$          |
| <p><b>5.</b></p> $\frac{1}{2}(x - 4) = 10$ | <p><b>6.</b></p> $\frac{3}{5}x + 5 = -25$ |

**Learning Target:** I will solve equations with more than one step

## Session 5: Guided Practice (We Do)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase with meaning. Then, complete the math drawing to find the solution.

|   |  |
|---|--|
| <p>1. <i>"1 third of what number plus 3 is equal to 10?"</i></p> $\frac{1}{3}x + 3 = 10$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">+ 3</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">  </div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div> | <p>2.</p> $\frac{1}{4}x - 3 = -1$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">+ x</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">  </div> <div style="margin-right: 10px;">-</div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div>   |
| <p>3.</p> $1 = \frac{2}{5}x - 5$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">  </div> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">+ 5</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> <div style="margin-right: 10px;">-</div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div>  | <p>4.</p> $\frac{3}{4}x + 2 = 17$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">+ 2</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">  </div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> <div style="margin-right: 10px;">+</div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div> |

**Learning Target:** I will solve equations with more than one step

## Session 5: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to solve each 1-step equation.

|   |   |
|---|---|
| <p>5. "1 fourth of what number plus 2 is equal to 9?"</p> $\frac{1}{4}x + 2 = 9$ <p style="text-align: center;">+x-tile</p> | <p>6.</p> $\frac{2}{3}x - 5 = 1$ <p style="text-align: center;">+x-tile</p> |
| <p>7.</p> $7 = 3x + 1$ <p style="text-align: center;">+x-tile</p>   | <p>8.</p> $\frac{1}{3}x - 4 = 2$ <p style="text-align: center;">+x-tile</p> |
| <p>9.</p> $10 = \frac{3}{5}x - 2$ <p style="text-align: center;">+x-tile</p>  | <p>10.</p> $4x + 5 = 17$ <p style="text-align: center;">+x-tile</p>         |



# Quick Check - Form E

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

**1.**

$$16 = 2x + 4$$

**2.**

$$3 - 4x = 11$$

**3.**

$$-5 + 3x = 10$$

**4.**

$$2(x + 5) = 30$$

**5.**

$$\frac{1}{4}(x - 3) = 20$$

**6.**

$$\frac{2}{3}x + 6 = -14$$



**Learning Target:** I will solve equations with more than one step

## Session 6: Guided Practice (We Do)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase with meaning. Then, complete the math drawing to find the solution.

|  |   |
|--|---|
| <p>1. <i>"1 third of what number plus 5 is equal to 12?"</i></p> $\frac{1}{3}x + 5 = 12$ <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="text-align: center; margin: 0;">+x-tile</p> </div> | <p>2.</p> $\frac{1}{4}x - 5 = -3$ <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="text-align: center; margin: 0;">+x-tile</p> </div> |
| <p>3.</p> $2 = \frac{2}{5}x - 4$ <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="text-align: center; margin: 0;">+x-tile</p> </div>   | <p>4.</p> $\frac{3}{4}x + 1 = 16$ <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="text-align: center; margin: 0;">+x-tile</p> </div> |

**Learning Target:** I will solve equations with more than one step

## Session 6: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to solve each 1-step equation.

|  |   |
|--|---|
| <p>5. "1 fourth of what number plus 2 is equal to 9?"</p> $\frac{1}{4}x + 3 = 10$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">+x</div> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">  </span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div>   | <p>6.</p> $\frac{2}{3}x - 2 = 4$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">+x</div> <span style="margin: 0 5px;">-</span> <span style="margin: 0 5px;">-</span> <span style="margin: 0 5px;">  </span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div>   |
| <p>7.</p> $8 = 3x + 2$ <div style="display: flex; align-items: center; justify-content: center;"> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">  </span> <div style="border: 1px solid black; padding: 2px; margin: 0 5px;">+x</div> <div style="border: 1px solid black; padding: 2px; margin: 0 5px;">+x</div> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 5px;"> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div> | <p>8.</p> $\frac{1}{3}x - 2 = 4$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">+x</div> <span style="margin: 0 5px;">-</span> <span style="margin: 0 5px;">-</span> <span style="margin: 0 5px;">  </span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div>   |
| <p>9.</p> $9 = \frac{3}{5}x - 3$ <div style="display: flex; align-items: center; justify-content: center;"> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">  </span> <div style="border: 1px solid black; padding: 2px; margin: 0 5px;">+x</div> <span style="margin: 0 5px;">-</span> <span style="margin: 0 5px;">-</span> <span style="margin: 0 5px;">-</span> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div>  | <p>10.</p> $4x + 6 = 18$ <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">+x</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">+x</div> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">  </span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> <span style="margin: 0 5px;">+</span> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div> <p style="margin: 0;">+x-tile</p> </div> |



# Quick Check - Form F

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

**1.**

$$31 = 5x + 6$$

**2.**

$$2 - 3x = 11$$

**3.**

$$-10 + 5x = 40$$

**4.**

$$2(x + 9) = 24$$

**5.**

$$\frac{1}{5}(x - 2) = 8$$

**6.**

$$\frac{3}{4}x + 10 = -14$$



Name \_\_\_\_\_

Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 7: Guided Practice (We Do)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase to understand the equality. Then, show each step using numbers and symbols to find the solution.

|                                    |                                      |  |
|------------------------------------|--------------------------------------|--|
| <p>1. <math>19 = 4x - 1</math></p> | <p>2. <math>2(x + 4) = 14</math></p> | <p>3. <math>\frac{2}{3}x + 4 = 10</math></p> |
|------------------------------------|--------------------------------------|--|



Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 7: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to show each step using numbers and symbols to find the solution.

|                              |                              |                              |
|------------------------------|------------------------------|------------------------------|
| 4.<br>$2x + 4 = 10$          | 5.<br>$3(x + 2) = -9$        | 6.<br>$-13 = 3x - 1$         |
| 7.<br>$\frac{1}{4}x + 2 = 9$ | 8.<br>$\frac{2}{3}x - 5 = 1$ | 9.<br>$1 = \frac{2}{5}x - 5$ |



# Quick Check - Form G

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

**1.**

$$14 = 4x + 2$$

**2.**

$$5 - 2x = 19$$

**3.**

$$-7 + 4x = 21$$

**4.**

$$3(x + 4) = 24$$

**5.**

$$\frac{1}{3}(x - 6) = 7$$

**6.**

$$\frac{4}{5}x + 3 = -17$$



Name \_\_\_\_\_

Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 8: Guided Practice (We Do)

**We Do Together:** (Teacher Actions)

- Translate the equation into a phrase to understand the equality. Then, show each step using numbers and symbols to find the solution.

|                                    |                                      |  |
|------------------------------------|--------------------------------------|--|
| <p>1. <math>18 = 4x - 2</math></p> | <p>2. <math>2(x + 4) = 16</math></p> | <p>3. <math>\frac{2}{3}x + 6 = 12</math></p> |
|------------------------------------|--------------------------------------|--|



Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve equations with more than one step

## Session 8: Guided Practice (We Do - Continued)

**You Do Together:** (As a class, or in small groups)

- Students take turns leading to show each step using numbers and symbols to find the solution.

|                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|
| 4.<br>$2x + 3 = 9$            | 5.<br>$3(x + 2) = -6$         | 6.<br>$-18 = 3x - 6$          |
| 7.<br>$\frac{1}{4}x + 3 = 10$ | 8.<br>$\frac{2}{3}x - 8 = -2$ | 9.<br>$1 = \frac{2}{5}x - 13$ |





# Quick Check - Form H

Name \_\_\_\_\_ Date \_\_\_\_\_

**Learning Target:** I will solve multi-step linear equations.

**Directions:** Solve each equation for  $x$ . (Work time: 4 minutes)

|  |   |
|--|---|
| <p><b>1.</b></p> $20 = 6x + 8$             | <p><b>2.</b></p> $7 - 5x = 32$            |
| <p><b>3.</b></p> $-9 + 8x = 15$            | <p><b>4.</b></p> $4(x + 2) = 28$          |
| <p><b>5.</b></p> $\frac{1}{2}(x - 4) = 10$ | <p><b>6.</b></p> $\frac{3}{5}x + 5 = -25$ |