

## EXTRA PRACTICE — Exercises

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### Unit II – First Degree Relations with One Placeholder Part C – Special Cases of Equations and Inequalities Lesson 1 – No Solution

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Find the solution set for each of the following relations. If there is no solution, indicate that in set notation as an empty set.

- $\frac{1}{2}(6x + 24) - 20 \leq \frac{1}{4}(12x - 72)$
- $5(4n + 6) - 10 = 2(15 + 10n)$
- $5x + 8 \geq 5(x + 4) - 6$
- $3 + 5(x + 4) = 5(x - 2)$
- $4(4y - 3) > \frac{1}{3}(48y + 63)$
- $2[8 - (15 - 2x)] = 4x - 15$
- $3(x + 4) - 2 < 3x + 10$
- $-2(x - 3) + 9x = 3x + \frac{2}{3}(6x - 18)$
- $2(t - 3) + t = 5t - 2(t + s)$
- $-4(x + 2) - 2x > -6x + 2$

## EXTRA PRACTICE — Answer Key

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#### Lesson 1 – No Solution

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Find the solution set for each of the following relations. If there is no solution, indicate that in set notation as an empty set.

1.  $-8 \leq -18$        $S = \{ \}$       False, Solution Set is empty

2.  $20 = 30$        $S = \{ \}$       False, Solution Set is empty

3.  $8 \geq 14$        $S = \{ \}$       False, Solution Set is empty

4.  $23 = -10$        $S = \{ \}$       False, Solution Set is empty

5.  $-12 > 21$        $S = \{ \}$       False, Solution Set is empty

6.  $-14 = -15$        $S = \{ \}$       False, Solution Set is empty

7.  $10 < 10$        $S = \{ \}$       False, Solution Set is empty

8.  $6 = -12$        $S = \{ \}$       False, Solution Set is empty

9.  $-6 = -10$        $S = \{ \}$       False, Solution Set is empty

10.  $-8 > 2$        $S = \{ \}$       False, Solution Set is empty