EXTRA PRACTICE — Exercises

Unit II – First Degree Relations with One Placeholder
Part D – Systems of Equations and Inequalities
Lesson 2 – Compound Sentences with "or"

Find the solution set for each of the following compound sentences (systems) and show those solution sets both on a number line and in set notation.

1. $x + 9 < 5$ or $4x > 12$

2. $m - 8 < 2$ or $6m > -18$

3. $3n \geq n + 6$ or $0 \geq n + 4$

4. $3x + 11 > 2$ or $8 - x > 4$

5. $5x + 12 < 2$ or $5x - 12 < {}^{-}3$

6 $3 - 4x \leq 11$ and $19 \geq 7 - 2x$

7. $2t - 7 < 5t + 8$ or $8 - 2t > 0$

8. $14 - 3x < 2$ or $5 - 4x > 17$

9. $4y + 6 < -10$ or $2y + 5 > 9 - 2y$

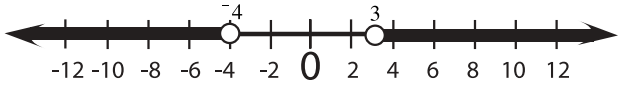
10. $3p + 11 \leq 20$ or $-4p \geq 20$

EXTRA PRACTICE — Answer Key

Unit II – First Degree Relations with One Placeholder
Part D – Systems of Equations and Inequalities
Lesson 2 – Compound Sentences with "or"

Find the solution set for each of the following compound sentences (systems) and show those solution sets both on a number line and in set notation.

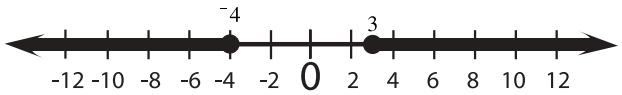
1. $S = \{ x \mid x < {}^{-}4 \text{ or } x > 3 \}$



2. $S = \{ m \mid m < 10 \text{ or } m > {}^{-}5 \}$

$S = \{\text{All Real Numbers}\}$

3. $S = \{ n \mid n \geq 3 \text{ or } n \leq {}^{-}4 \}$

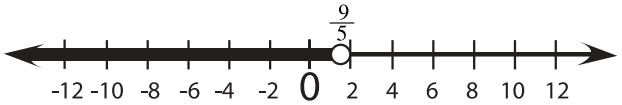


4. $S = \{ x \mid x > {}^{-}3 \text{ or } x < 4 \}$

$S = \{\text{All Real Numbers}\}$

5. $S = \{ x \mid x < {}^{-}2 \text{ or } x < \frac{9}{5} \}$

$S = \{ x \mid x < \frac{9}{5} \}$



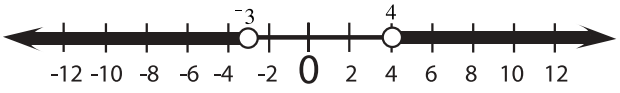
6 $S = \{ x \mid x \geq {}^{-}2 \text{ or } x \geq {}^{-}6 \}$

$S = \{ x \mid x \geq {}^{-}6 \}$

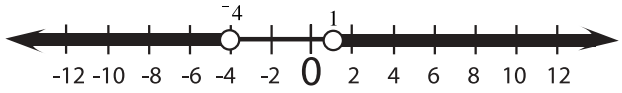
7. $S = \{ t \mid t > {}^{-}5 \text{ or } t < 4 \}$

$S = \{\text{All Real Numbers}\}$

8. $S = \{ x \mid x > 4 \text{ or } x < {}^{-}3 \}$



9. $S = \{ y \mid y < {}^{-}4 \text{ or } y > 1 \}$



10. $S = \{ p \mid p \leq 3 \text{ or } p \leq {}^{-}5 \}$

$S = \{ p \mid p \leq 3 \}$