

EXTRA PRACTICE — Exercises

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Unit II – First Degree Relations with One Placeholder

Part D – Systems of Equations and Inequalities

Lesson 5 – Absolute Value Greater Than a Non-Negative Number (or)

Find the solution set for each of the following absolute value relations and show the solution set on a number line and in set notation.

1. $|2x - 3| > 7$

2. $-3|x + 1| \leq -15$

3. $2|x - 3| \geq 4$

4. $\left| \frac{2p - 7}{3} \right| > 1$

5. $\left| \frac{3}{2}x + 6 \right| \geq 3$

6. $|3x - 4| > -2$

7. $14 < |4n - 2|$

8. $16 < |2x + 3| + 9$

9. $|4n - 5| - 18 \geq -3$

10. $2 \leq |x - 1| \leq 5$

EXTRA PRACTICE — Answer Key

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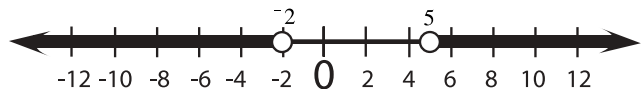
Unit II – First Degree Relations with One Placeholder

Part D – Systems of Equations and Inequalities

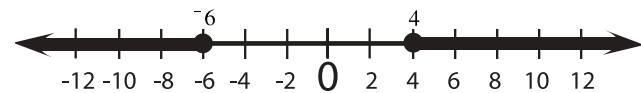
Lesson 5 – Absolute Value Greater Than a Non-Negative Number (or)

Find the solution set for each of the following absolute value relations and show the solution set on a number line and in set notation.

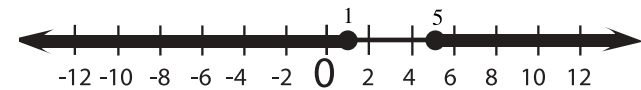
1. $S = \{x \mid x < -2 \text{ or } x > 5\}$



2. $S = \{x \mid x \leq -6 \text{ or } x \geq 4\}$



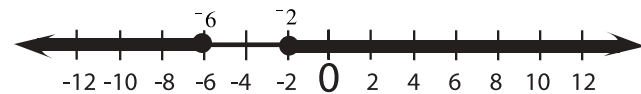
3. $S = \{x \mid x \leq 1 \text{ or } x \geq 5\}$



4. $S = \{p \mid p < 2 \text{ or } p > 5\}$



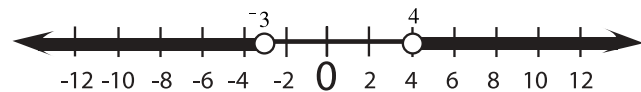
5. $S = \{x \mid x \leq -6 \text{ or } x \geq -2\}$



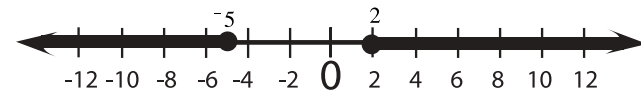
6. $S = \{\text{All Real Numbers}\}$



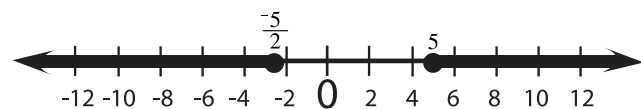
7. $S = \{n \mid n < -3 \text{ or } n > 4\}$



8. $S = \{x \mid x \leq -5 \text{ or } x \geq 2\}$



9. $S = \{n \mid n \leq \frac{-5}{2} \text{ or } n \geq 5\}$



10. $S = \{x \mid x \leq -1 \text{ or } x \geq 3 \text{ and } x \geq -4 \text{ and } x \leq 6\}$

