

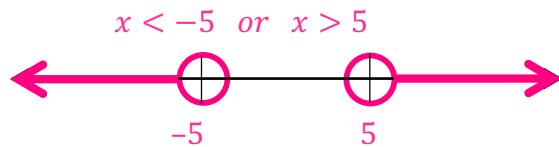
Name: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

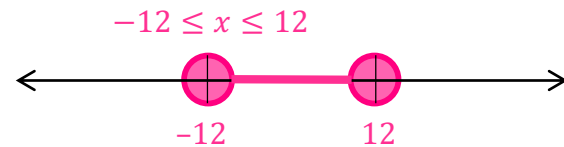
## Absolute Value Inequalities

### Section I. Solve the absolute value inequality and graph the solution.

1.  $|x| > 5$



2.  $|x| \leq 12$



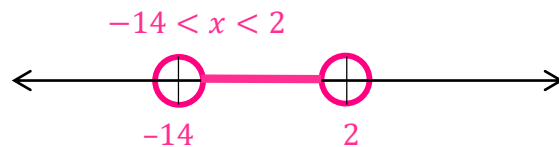
3.  $|x| < -7$



4.  $|x| \geq -\frac{3}{2}$



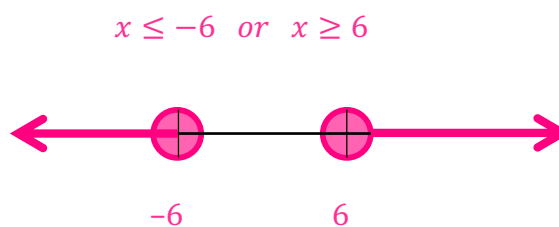
5.  $|x + 6| < 8$



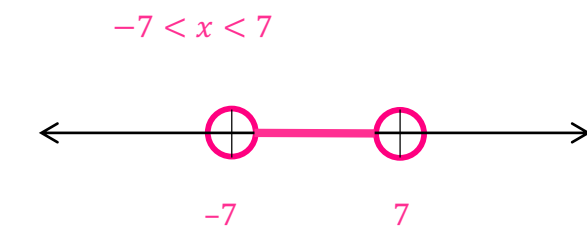
6.  $|x - 9| > -15$



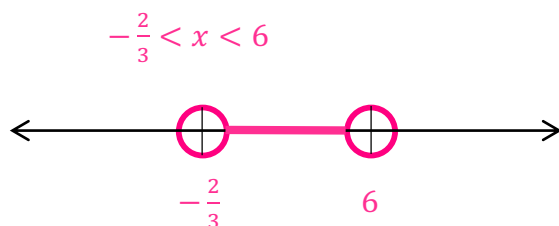
7.  $|7x| \geq 42$



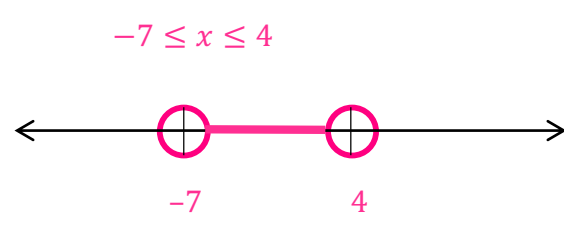
8.  $|-8x| > 56$



9.  $|3x - 8| < 10$

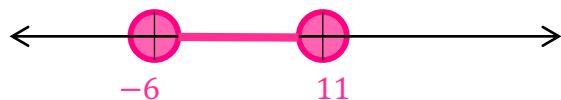


10.  $|4x + 6| < 22$



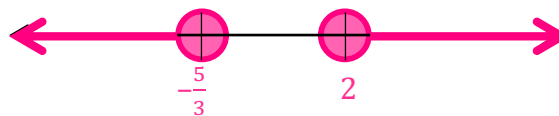
11.  $|5 - 2x| \leq 17$

$$-6 \leq x \leq 11$$



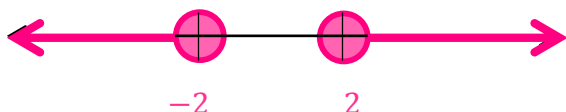
12.  $|6x - 1| \geq 11$

$$x \leq -\frac{5}{3} \text{ or } x \geq 2$$



13.  $3|-7x| \geq 42$

$$x \leq -2 \text{ or } x \geq 2$$



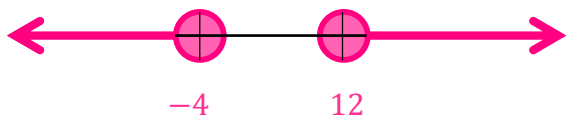
14.  $-5|8 - x| < -35$

$$x < 1 \text{ or } x > 15$$



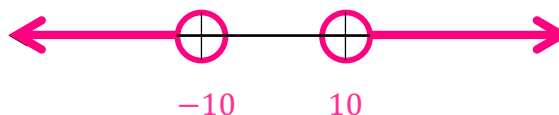
15.  $13 - |x - 4| \leq 5$

$$x \leq -4 \text{ or } x \geq 12$$

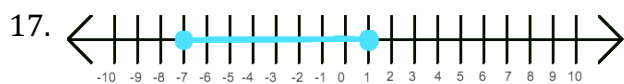


16.  $4\left|\frac{4}{5}x\right| - 4 > 28$

$$x < -10 \text{ or } x > 10$$



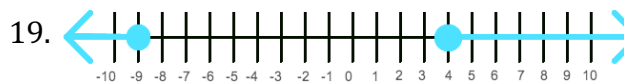
**Section II. Write an absolute value equation for the given inequality.**



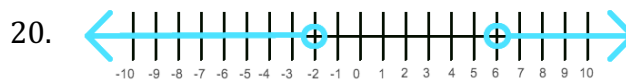
$$|x + 3| \leq 4$$



$$|2x - 5| < 9$$



$$|2x + 5| \geq 13$$



$$|x - 2| > 4$$