

Solve Absolute Value Inequalities

 **Solve each inequality and graph its solution.**

1) $\left|\frac{x}{8}\right| \leq 6$

2) $|-14n| \leq 34$

3) $\left|\frac{x}{5}\right| \geq 5$

4) $|-3b| \leq 42$

5) $|-6n| < 48$

6) $|x + 8| < 11$

7) $|3m - 6| \leq 33$

8) $|6 + 9x| < 14$

9) $|3 - 9a| \leq 60$

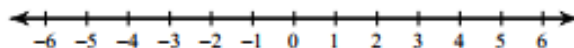
10) $|7x + 8| \geq 22$

11) $\left|\frac{x-4}{5}\right| \geq 2$

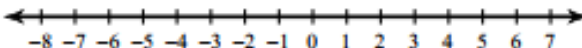
12) $\left|\frac{3+r}{7}\right| \geq 8$

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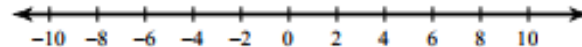
1) $|x| - 11 > -14$



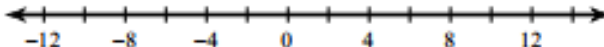
2) $|n| - 9 \leq -7$



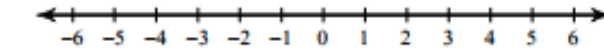
3) $|a| + 7 < 23$



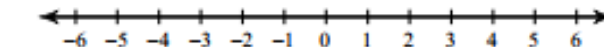
4) $|x| + 6 > 32$



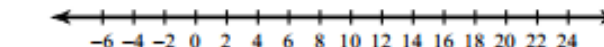
5) $|x| - 11 \leq 0$



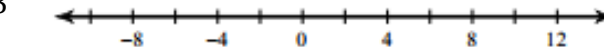
6) $|z| + 5 < 13$



7) $|x - 8| + 8 > 13$



8) $-5 + |n - 9| > 23$



Answers

Absolute Value Inequalities

1) $x \leq 48$ and $x \geq -48$

2) $n \geq \frac{-17}{7}$ and $n \leq \frac{17}{7}$

3) $x \geq 25$ or $x \leq -25$

4) $x \geq -14$ or $x \leq 14$

5) $n > -8$ and $n < 8$

6) $x < 3$ and $x > -19$

7) $m \leq 13$ and $m \geq -9$

8) $x < \frac{4}{3}$ and $x > \frac{-16}{9}$

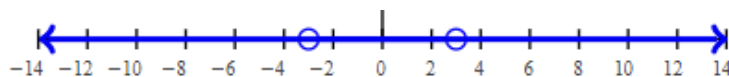
9) $a \geq \frac{-19}{3}$ and $a \leq 7$

10) $x \geq 2$ or $x \leq -\frac{30}{7}$

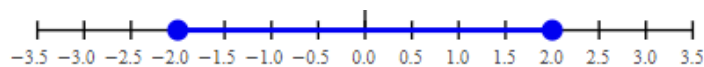
11) $-6 \leq x \leq 14$

12) $r \geq 53$ or $r \leq -59$

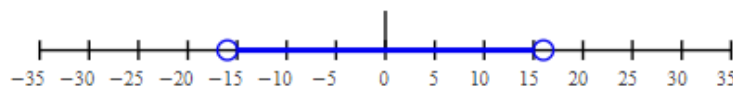
13)



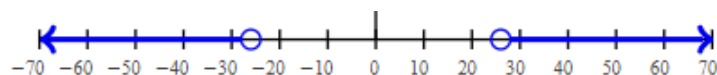
14)



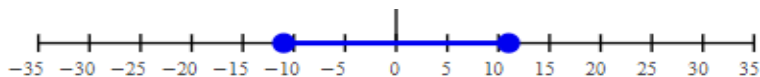
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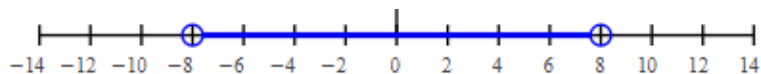
16)



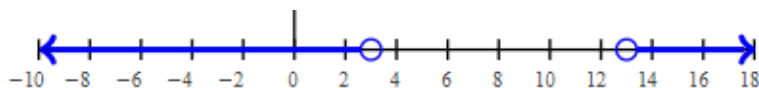
17)



18)



19)



20)

