

T2 Review

Solving Absolute Value Equations and Inequalities; Solving Compound Linear Inequalities

Solve each equation. Show the work needed to justify your answer.

1) $\frac{|m|}{9} = 5$

2) $7 + |x| = 16$

3) $-5|x + 5| = -65$

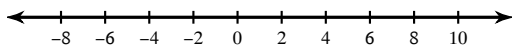
4) $3 + |x + 5| = 8$

5) $3 + 4\left|\frac{x}{8}\right| = 6$

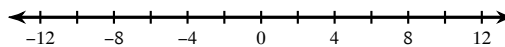
6) $3|m + 8| + 5 = 44$

Solve each inequality and graph its solution.

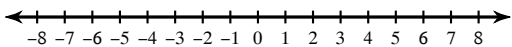
7) $|x| > 6$



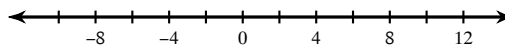
8) $|x| < 10$



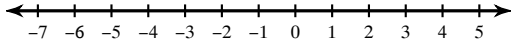
9) $|-5x| \leq 25$



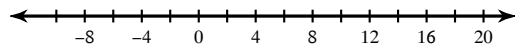
10) $|4b| + 5 \leq 45$



$$11) \frac{|7n - 6|}{6} \geq 1$$

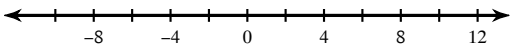


$$12) 10 + 4|10 - 2x| > 106$$

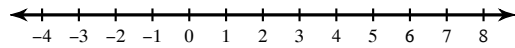


Solve each compound inequality and graph its solution.

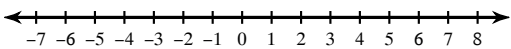
$$13) -95 \leq 9n - 5 < 76$$



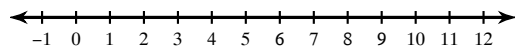
$$14) 7x - 9 \geq 19 \text{ or } -5 + 7x \leq 9$$



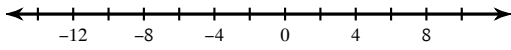
$$15) 2 < 6 + p < 11$$



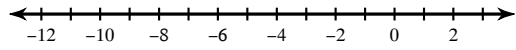
$$16) -3x + 1 > -5 \text{ or } 4 + 10x \geq 74$$



17) $8x + 2 > 66$ or $2x - 1 \leq -19$



18) $5 \geq 5 + 6p > -55$



Solve each equation by factoring.

19) $x^2 - 7x - 8 = 0$

20) $x^2 + 5x + 1 = -5$

21) $n^2 = -24 - 10n$

22) $x^2 - 7x + 10 = 0$