

Algebra 3 Assignment # 1

Absolute value inequalities

Solve for x please.

(1) $-4 \leq 3x + 2 \leq 8$

(6) $3|2 - x| \leq 9$

(2) $|2x + 3| = 5$

(7) $6 - 5|6x + 2| < 1$

(3) $|4x - 3| < 9$

(8) $8 + |3 - x| = 5$

(4) $|5x + 4| \geq 1$

(9) $|x - 3| + 8 > 8$

(5) $|7 - 5x| \leq 11$

(10) $|x - 2| = 5x$

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Answers

(1) $-2 \leq x \leq 2$

(6) $-1 \leq x \leq 5$

(2) $x = -4$, or $x = 1$

(7) $x < -\frac{1}{2}$ or $x > -\frac{1}{6}$

(3) $-\frac{3}{2} < x < 3$

(8) ϕ

(4) $x \leq -1$ or $x \geq -\frac{3}{5}$

(9) $x \neq 3$

(5) $-\frac{4}{5} \leq x \leq \frac{18}{5}$

(10) $\frac{1}{3}$