

This quiz is worth 20 points (4 points per problem). You must show your work to receive any credit.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Solve the inequality. Express your answer using interval notation.

1) $|3x - 8| + 1 > -5$

1) _____

A) $(-\infty, \frac{2}{3})$ or $(\frac{14}{3}, \infty)$

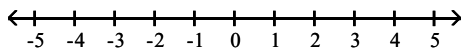
B) $(\frac{2}{3}, \frac{14}{3})$

C) $(-\infty, \infty)$

D) no solution

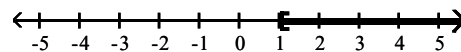
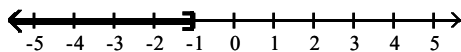
2) $x(4x + 1) \leq (2x + 4)^2$

2) _____



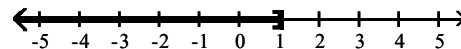
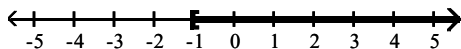
A) $(-\infty, -\frac{16}{15}]$

B) $[\frac{16}{15}, \infty)$



C) $[-\frac{16}{15}, \infty)$

D) $(-\infty, -\frac{16}{15}]$



3) $|7x + 3| + |-5| \leq 11$

3) _____

A) $(-\infty, -\frac{3}{7}]$ or $[\frac{9}{7}, \infty)$

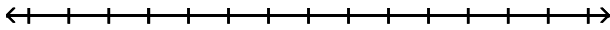
B) $(-\infty, -\frac{9}{7}]$ or $[\frac{3}{7}, \infty)$

C) $[-\frac{9}{7}, \frac{3}{7}]$

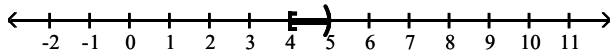
D) $[-\frac{3}{7}, \frac{9}{7}]$

4) $-6 \leq -2x + 4 < -4$

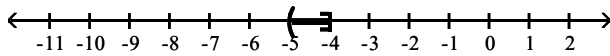
4) _____



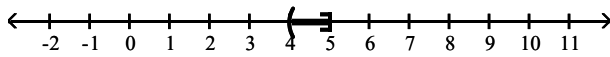
A) $[4, 5)$



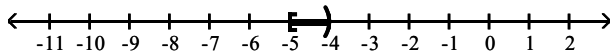
B) $(-5, -4]$



C) $(4, 5]$



D) $[-5, -4)$



Solve the equation.

5) $|2(x + 1) + 6| = 10$

A) $\{-9, 1\}$

B) $\{-7, 0\}$

C) $\{-7, 3\}$

D) $\{-9, 0\}$

5) _____