

Linear and Quadratic Inequalities - Section Test

1) One of the values of x below does not satisfy the inequality $3x + 2 > x$. Which is it?

(a) $x = -1$

(b) $x = 0$

(c) $x = 1$

(d) $x = 2$

2) One of the values of x below does not satisfy the inequality $x^2 < 2$. Which is it?

(a) $x = -2$

(b) $x = 0$

(c) $x = 1$

(d) $x = -1$

3) What is the smallest integer x for which $3x > 25$?

4) Solve the inequality $7 - 4x \geq 3$

(a) $x \geq 1$

(b) $x \leq 1$

(c) $x \geq 2$

(d) $x \leq 2$

5) Solve the inequality $4x + 1 \geq x - 8$

$x \geq \boxed{}$

6) Solve the inequality $\frac{x+1}{2} \leq \frac{2-x}{3}$

Give your answer as an exact decimal.

$x \leq \boxed{}$

7) What is the largest integer value for x which satisfies the inequality $2(1-2x) - x > 3(x+1) + 7$?

$x = \boxed{}$

8) What are the integer values for x that satisfy the inequality $x^2 - 5x + 4 < 0$?

Give your answers in ascending order.

9) What range of values for x solve the inequality $8 + 2x - x^2 < 0$?

$x < \boxed{}$ or $x > \boxed{}$

10) What is the range of values for x that satisfy the inequality $6x^2 + x - 2 \geq 0$?

(a) $x \leq -\frac{1}{2}$ or $x \geq \frac{2}{3}$

(b) $-\frac{2}{3} \leq x \leq \frac{1}{2}$

(c) $x \leq -\frac{2}{3}$ or $x \geq \frac{1}{2}$

(d) $-\frac{1}{2} \leq x \leq \frac{2}{3}$