

PRINTABLE VERSION

Quiz 8

Question 1

Solve the inequality for x and express the solution in interval notation: $x^2 + 4x - 12 \geq 0$

- a) $(-\infty, 2] \cup [6, \infty)$
- b) $[-2, 6]$
- c) $[-6, 2]$
- d) $(-\infty, -6] \cup [2, \infty)$
- e) $(-\infty, -2) \cup (6, \infty)$

Question 2

Solve the inequality for x and express the solution in interval notation: $x^2 \leq 4x + 45$

- a) $[-5, 9]$
- b) $(-\infty, -9) \cup (5, \infty)$
- c) $(-\infty, 5] \cup [9, \infty)$
- d) $(-\infty, -5] \cup [9, \infty)$
- e) $(-9, 5)$

Question 3

Solve the inequality for x and express the solution in interval notation: $4x^2 - 48 > x^2 + 18x$

- a) $(-\infty, -8) \cup (2, \infty)$
- b) $(-\infty, -2] \cup [8, \infty)$
- c) $(-8, 2)$
- d) $[-2, 8]$
- e) $(-\infty, -2) \cup (8, \infty)$

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Solve the inequality for x , given that: $x(2x - 12)(6x - 54) \geq 0$

- a) $[0, 6] \cup [9, \infty)$
- b) $(-\infty, 2) \cup (6, 9)$
- c) $(0, 6) \cup (6, \infty)$
- d) $[0, 6] \cup [6, \infty)$
- e) $(-2, 6] \cup [9, \infty)$

Question 5

Solve the inequality for x , given that $(x - 5)^2(32 - 4x) > 0$

- a) $(-\infty, 5) \cup (5, 8)$
- b) $(-5, 0) \cup (5, \infty)$
- c) $(-\infty, 5) \cup (5, \infty)$
- d) $(-\infty, -5) \cup (8, \infty)$
- e) $(-5, 0) \cup (0, 8)$

Question 6

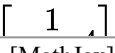
Solve the inequality for x , given that: $x^3 - 8x^2 + 12x \leq 0$

- a) $[0, 2] \cup [6, \infty)$
- b) $[-2, 0] \cup [6, \infty)$
- c) $(-2, 0) \cup (0, 6)$
- d) $(-\infty, -2) \cup (6, \infty)$
- e) $(-\infty, 0] \cup [2, 6]$

Question 7

Solve the inequality for x , given that: $\frac{5x + 1}{x - 4} \leq 0$

- a) $(-\infty, 4) \cup (4, \infty)$

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- c) $[-5, 4)$
- d) $\left[-\frac{1}{5}, 4\right)$
- e) $\left(-\infty, -\frac{1}{5}\right] \cup (4, \infty)$

Question 8

Solve the inequality for x , given that: $\frac{2x - 8}{(x - 2)(x - 8)} < 0$

- a) $(-\infty, -4) \cup (4, 8)$
- b) $(-\infty, 4) \cup (4, \infty)$
- c) $(-\infty, 2) \cup (4, \infty)$
- d) $(-\infty, 2) \cup (4, 8)$
- e) $(-\infty, -2) \cup (4, 8)$

Question 9

Solve the inequality for x , given that: $\frac{3 - x}{x - 6} \geq -4$

- a) $(-\infty, 6) \cup [7, \infty)$
- b) $[7, \infty)$
- c) $(-\infty, 7)$
- d) $(7, \infty)$
- e) $(-\infty, 6] \cup [7, \infty)$

Question 10

Solve the inequality for x , given that: $\frac{1}{x - 2} + \frac{5}{2x - 18} \geq 0$

- a) $(-\infty, 2) \cup [4, 9)$
- b) $[2, 4] \cup [9, \infty)$
- c) $(-9, 2) \cup (4, \infty)$

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d) $(-\infty, 4) \cup (4, \infty)$

e) $(2, 4] \cup (9, \infty)$