PRINTABLE VERSION

Quiz 7

Question 1

Express the solution of the following inequality in interval notation.

$$10x \leq 3$$

a) ○ $[-\frac{3}{10}, \infty)$

b) ○ $(-\infty, \frac{3}{10})$

c) ○ $[\frac{3}{10}, \infty)$

d) ○ $(-\infty, -\frac{3}{10}]$

e) ○ $(-\infty, \frac{3}{10}]$

f) ○ None of the above.

Question 2

Express the solution of the following inequality in interval notation.

$$-5x > 3$$

a) ○ $(-\infty, -\frac{3}{5}]$

b) ○ $(-\infty, \frac{3}{5}]$

c) ○ $[\frac{3}{5}, \infty)$

d) ○ $(-\infty, -\frac{3}{5})$

e) ○ $[-\frac{3}{5}, \infty)$

f) ○ None of the above.

Question 3

Express the solution of the following inequality in interval notation.

$$5x - 5 \geq -2$$

a) ⃝ $(\infty, \, ^3\!/_5]$

b) ⃝ $(^3\!/_5, \, \infty)$

c) ⃝ $(^7\!/_5, \, \infty)$

d) ⃝ $[^7\!/_5, \, \infty)$

e) ⃝ $[^3\!/_5, \, \infty)$

f) ⃝ None of the above.

Question 4

Express the solution of the following inequality in interval notation.

$$11 - 11x > -3$$

a) ⃝ $(-\infty, \, ^{14}\!/_{11}]$

b) ⃝ $(-\infty, \, ^{14}\!/_{11})$

c) ⃝ $(-\infty, \, -\,^8\!/_{11})$

d) ⃝ $(-\infty, \, ^8\!/_{11}]$

e) ⃝ $(-\infty, \, ^8\!/_{11})$

f) ⃝ None of the above.

Question 5

Express the solution of the following inequality in interval notation.

$$3x + 4 < 6x - 6$$

a) ○ $(-\infty, {}^{10}\!/_3)$

b) ○ $(-{}^2\!/_3, \infty)$

c) ○ $(-\infty, -{}^2\!/_3)$

d) ○ $({}^8\!/_3, \infty)$

e) ○ $({}^{10}\!/_3, \infty)$

f) ○ None of the above.

Question 6

Express the solution of the following inequality in interval notation.

$$1 + \frac{7x}{11} - \frac{1}{7}(x + 11) \geq x$$

a) ○ $[-{}^{44}\!/_{39}, \infty)$

b) ○ $(-\infty, -{}^{44}\!/_{39}]$

c) ○ $(-\infty, {}^{66}\!/_{13})$

d) ○ $(-\infty, {}^{66}\!/_{13}]$

e) ○ $(-\infty, -{}^{44}\!/_{39})$

f) ○ None of the above.

Question 7

Find the solutions of the equation.

$$30 < 5x - 5\left(\frac{x-6}{2}\right) \leq 60$$

a) ○ $(-\infty, 6] \cup [18, \infty)$

b) ○ (6, 18)

c) ○ (6, 18]

d) ○ (-∞, 6)∪[18, ∞)

e) ○ [6, 18]

f) ○ None of the above.

Question 8

Solve for x:

$$-3 \leq \frac{4x + 17}{2} < 5$$

a) ○ $[-5, -\frac{7}{4})$

b) ○ $[-\frac{23}{4}, -\frac{7}{4})$

c) ○ $[-\frac{23}{4}, -3)$

d) ○ $(-\frac{23}{4}, -\frac{7}{4})$

e) ○ $(-\frac{23}{4}, -\frac{7}{4}]$

f) ○ None of the above.

Question 9

Solve the following compound inequality.

$$-10 < -2x \leq 10$$

a) ○ $-5 \leq x < 5$

b) ○ All real numbers

c) ○ $x > -5$ or $x < 5$

d) ○ $x \leq -5$ or $x > 5$

e) ○ -55

f) ○ None of the above.

Question 10

Solve the following inequality: $8x + 9 \leq 16x - 11$

a) ○ $x \geq 5/2$

b) ○ $x \geq 11/8$

c) ○ $x \leq 9/4$

d) ○ $x \leq 5/2$

e) ○ $x \geq 9/4$

f) ○ None of the above.