Assessment

Lesson-18

Question 1

Rewrite this inequality so that 0 is on one side and a single rational expression on the other

$$\frac{3x-1}{10} < \frac{1}{2}$$

A. $\frac{3x-1}{10} - \frac{1}{2} < 0$

B. $\frac{3x}{8} > 0$

C. $\frac{3x}{8} < 0$

D. $\frac{3x-6}{10} < 0$

Question 2

Rewrite this inequality so that 0 is on one side and a single rational expression on the other

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

A. $\frac{-x+17}{(x-3)x+4)} < 0$

B. $\frac{2}{x-3} - \frac{3}{x+4} > 0$

C. $\frac{2}{x-3} - \frac{3}{x+4} < 0]$

D. $\frac{-x+17}{(x-3)(x+4)} > 0$

Question 3

Find the critical values for determining the intervals in solving this inequality $\frac{x-1}{x+2} > 0$

A. $x = 1,\ x = 2$

B. $x = -1,\ x = 2$

C. $x = 1,\ x = -2$

D. $x = -1,\ x = -2$

Question 4

Find the critical values for determining the intervals in solving this inequality $\frac{x+7}{x-2} < 0$

A. $x = 7, x = -2$

B. $x = -7, x = -2$

C. $x = 7, x = 2$

D. $x = -7, x = 2$

Question 5

Find the critical values for determining the intervals in solving this inequality $\frac{x^2 - x - 12}{1 - x} \geq 0$

A. $x = -3, x = -1\ x = 4$

B. $x = -4\ , x = 1, x = 3$

C. $x = -4, x = -3, x = -1$

D. $x = -3, x = 1, x = 4$

Question 6

Solve this rational inequality $\frac{1}{x+10} > 0$

A. $(-\infty, 10)$

B. $(10, -\infty)$

C. $[10, \infty]$

D. $(-10, \infty)$

Question 7

Solve this rational inequality $\frac{x+14}{x+5} - < 2$

A. $(-\infty, 4) \cup (5, \infty)$

B. $(-5, 4)$

C. $(-\infty, -5) \cup (4, \infty)$

D. $(-\infty, -5) \cup (4, \infty)$

Question 8

Solve this rational inequality $\dfrac{(x+7)(x-3)}{x-1} \geq 0$

A. $(-\infty,-7]\cup[3,\infty)$

B. $[-7,1]\cup[3,\infty)$

C. $(-\infty,-7]\cup(1,3]$

D. $[-7,1)\cup[3,\infty)$

Question 9

Solve this rational inequality $\frac{x}{x+3} \geq 2$

A. $(-3, 6)$

B. $(-\infty, -3) \cup [0, \infty)$

C. $(-\infty, -6] \cup (-3, \infty)$

D. $[-6, -3)$

Question 10

Solve this rational inequality $\dfrac{(x-1)(3-x)}{(x-2)^2}$

A. $(-\infty,-3)\cup(-1,\infty)$

B. $(-\infty,1)(3,\infty)$

C. $(-\infty,-3]\cup(-2,-1)\cup[1,\infty)$

D. $(-\infty,1]\cup[3,\infty)$