

PRINTABLE VERSION

Quiz 9

Question 1

Solve the for x : $|3x - 2| = 5$

a) $\left\{ \frac{7}{3}, -\frac{7}{3} \right\}$

b) $\left\{ \frac{7}{3} \right\}$

c) $\{1, -1\}$

d) $\{1\}$

e) $\left\{ \frac{7}{3}, -1 \right\}$

Question 2

Solve the for x : $|5x - 9| + 9 = 9$

a) $\left\{ \frac{5}{9}, -\frac{5}{9} \right\}$

b) $\left\{ \frac{5}{9} \right\}$

c) $\left\{ \frac{9}{5}, -\frac{9}{5} \right\}$

d) $\left\{ 0, \frac{9}{5} \right\}$

e) $\left\{ \frac{9}{5} \right\}$

Question 3

Solve the for x : $-2 |4 - 2x| + 9 = 6$

a) $\left\{ \frac{11}{4}, -\frac{11}{4} \right\}$

- b) $\left\{ \frac{11}{4} \right\}$
- c) $\left\{ \frac{5}{4}, -\frac{5}{4} \right\}$
- d) $\left\{ \frac{5}{4}, \frac{11}{4} \right\}$
- e) No Solution.

Question 4

Solve the for x : $|4x - 2| + 11 = 8$

- a) $\left\{ -\frac{1}{4}, \frac{1}{4} \right\}$
- b) $\left\{ \frac{17}{4}, -\frac{17}{4} \right\}$
- c) $\left\{ \frac{17}{4} \right\}$
- d) $\left\{ -\frac{1}{4}, \frac{5}{4} \right\}$
- e) No Solution.

Question 5

Solve the for x : $|x + 2| = |8x + 4|$

- a) $\left\{ -\frac{2}{7} \right\}$
- b) $\left\{ -\frac{2}{7}, -\frac{2}{9} \right\}$
- c) No Solution.
- d) $\left\{ -\frac{2}{9}, \frac{2}{9} \right\}$
- e) $\left\{ -\frac{2}{7}, -\frac{2}{3} \right\}$

Question 6

Solve the following inequality and give the answer in interval notation: $|3x + 5| \geq 9$

- a) No Solution.
- b) $\left[-\frac{14}{3}, \frac{4}{3}\right]$
- c) $\left(-\infty, \frac{4}{3}\right] \cup \left[\frac{14}{3}, \infty\right)$
- d) $\left(-\infty, -\frac{4}{3}\right] \cup \left[\frac{4}{3}, \infty\right)$
- e) $\left(-\infty, -\frac{14}{3}\right] \cup \left[\frac{4}{3}, \infty\right)$

Question 7

Solve the following inequality and give the answer in interval notation: $15 - 3|x + 4| > 8$

- a) $\left(-\frac{19}{3}, -\frac{5}{3}\right)$
- b) $\left(-\infty, -\frac{14}{3}\right) \cup \left(-\frac{10}{3}, \infty\right)$
- c) $\left(-\frac{14}{3}, -\frac{10}{3}\right)$
- d) No Solution.
- e) $\left(-\infty, -\frac{19}{3}\right) \cup \left(-\frac{5}{3}, \infty\right)$

Question 8

Solve the following inequality and give the answer in interval notation: $|3x - 2| + 16 < 7$

- a) $(-\infty, -5) \cup (1, \infty)$
- b) $\left(-\infty, -\frac{7}{3}\right) \cup \left(\frac{11}{3}, \infty\right)$
- c) No Solution.
- d) $\left(-\frac{33}{13}, -\frac{19}{13}\right)$

e) $\left(-\frac{7}{3}, \frac{11}{3}\right)$

Question 9

Solve the following inequality and give the answer in interval notation: $\left|\frac{x-3}{2}\right| \geq 7$

a) $\left(-\infty, \frac{19}{7}\right) \cup \left(\frac{23}{7}, \infty\right)$

b) No Solution.

c) $(-\infty, -11] \cup [17, \infty)$

d) $[-11, 17]$

e) $\left(-\infty, \frac{19}{7}\right] \cup \left[\frac{23}{7}, \infty\right)$

Question 10

Solve the following inequality and give the answer in interval notation: $|3 - 4x| \geq -5$

a) $\left(-\infty, -\frac{1}{2}\right] \cup [2, \infty)$

b) No Solution.

c) $\left[-\frac{1}{2}, 2\right]$

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

e) $[2, \infty)$