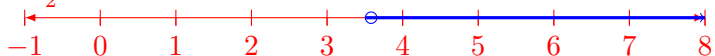


COLLEGE ALGEBRA QUIZ

- (1) Solve $x + 7 < 5x - 7$ and graph the solution set.

Solution:

$$x > \frac{7}{2}$$



- (2) Find the domain of $g(x) = \frac{6}{\sqrt{4+x}}$.

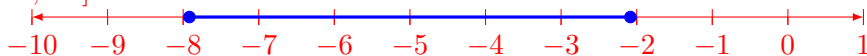
Solution:

$$(-4, \infty)$$

- (3) Solve $-3 \leq x + 5 \leq 3$ and write interval notation for the solution set. Then graph the solution set.

Solution:

$$[-8, -2]$$



- (4) Solve $2x \leq -8$ or $x - 1 > 0$ and write interval notation for the solution set. Then graph the solution set.

Solution:

$$(-\infty, -4] \cup (1, \infty)$$



- (5) The three countries with the most coffee production are Brazil, Vietnam, and Colombia. A good estimate of the world's coffee production in millions of tons since 1989, is represented by the function, $f(x) = 0.1444x - 282.02$, where x is the year. When will the world's coffee production exceed 10 million tons?

Solution:

After year 2022