

Chapter 4 Canvas practice test answers

1a) $x = \frac{5}{3}$

1b) $x < \frac{5}{3}$

1c) $x = -1$

1d) $x < -1$

2a) 29 units will be supplied

2b) 17 units will be demanded

2c) supply exceeds demand

2d) \$2.00

2e) 20 units

2f) 20 units

3a) \$430

3b) \$480

3c) profit

3d) \$50

3e) 25 units

3f) \$400

3g) \$400

3h) \$0

4a) $y = 9.4x + 1.8$

4b) $y = 77$

5a) $y = -0.0072x + 49.0554$ a better answer might be $g(w) = -0.0072 + 49.0554$

5b) about 23 miles per gallon

6a) $f(x - 5) + 4 = (x - 5)^2 + 4$

6b) right 5 up 4

6c) (3,8) (4,5) (5,4) (6,5) (7,8) (I think you will have to type this answer as points on the test as tables are hard to make on Canvas.)

6d) domain $(-\infty, \infty)$

6e) range $[4, \infty)$

6f) increasing $(5, \infty)$

6g) decreasing $(-\infty, 5)$

6h) no maximum point

6i) (5,4) is a local minimum point, the local minimum value is $y = 4$ which occurs when $x = 5$

7a) $f(x) = 2(x + 6)^2 - 63$

7b) The graph has the same shape as $g(x) = x^2$, except it is shifted left 6 units and down 63 units and is narrower (stretched).

8a) 60 seconds

8b) 30 seconds

8c) 14400 feet

9a) 20 workers

9b) \$8000