MATH 1310-Winter Session 2017 Homework 2

These questions are based on the MATH 1310 textbook. Please place your answers in the casa.uh.edu website under the EMCF tab for Homework 2.

1. Section 3.1, Question 18

a. $(-\infty, -4) \cup (-4, 4) \cup (4, \infty)$

b. $(-\infty, -4) \cup (4, \infty)$

c. $(-\infty, 4) \cup (4, \infty)$

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

2. Section 3.2, Question 10a

a. $[-3, 6]$

b. $[-2, 7]$

c. $[-2, 0) \cup (0, 3) \cup (3, 6]$

d. $(-1, 3)$

3. Section 3.2, Question 10b

a. $[-3, 6]$

b. $[-2, 7]$

c. $[-2, 0) \cup (0, 3) \cup (3, 6]$

d. $(-1, 3)$

4. Section 3.4, Question 14 (translation):

a. Shift up 5 units

b. Shift down 5 units

c. Shift left 5 units

d. Shift right 5 units

5. Section 3.4, Question 14 (reflection)

a. Reflection through x-axis.

b. Reflection through y-axis.

c. Reflection through x-axis and y-axis.

d. No reflections.

6. Section 3.5, Question 10a

a. $y = 5(x + 1)^2 + 3$

b. $y = 5(x – 1)^2 + 3$

c. $y = 5(x – 1)^2 + 7$

d. $y = (5x – 5)^2 + 33$

7. Section 3.5, Question 10b

a. (-1, -3)

b. (1, -3)

c. (-1, 5)

d. (1, 3)

8. Section 3.6, Question 34a

a. $(fog)(x) = -6x^2 + 40$

b. $(fog)(x) = -6x^2 + 44$

c. $(fog)(x) = -36x^2 + 24x + 94$

d. $(fog)(x) = -6x^2 -2x + 48$

9. Section 3.7, Question 40

a.$f^{-1}(x) = \sqrt{5 - x}$

b. .$f^{-1}(x) = -\sqrt{5 - x}$

c. .$f^{-1}(x) = \pm\sqrt{5 - x}$

d. .$f^{-1}(x) = \sqrt{x} - 5$

10. Section 3.7, Question 44

a. $f^{-1}(x) = \frac{5}{x-7}$

b. $f^{-1}(x) = \frac{2}{x}$

c. .$f^{-1}(x) = 7 - \frac{5}{x}$

d. $f^{-1}(x) = \frac{5-x}{x}$