Math 1314
Homework 1

Enter your answers in the EMCF titled "Homework 1" at casa.uh.edu before the due date/time. In the problem numbers given below, 1.4.18 refers to Chapter 1, Section 4, Problem 18. The problems can be found in the online text.

1. Problem 1.1.30; write equation in slope-intercept form

    A. $y = 2x - 5$
    B. $y = -2x + 5$
    C. $y = -5x + 2$
    D. $y = -2x - 5$
    E. $y = 5x - 2$

2. Problem 1.1.38; write equation in slope-intercept form

    A. $y = \dfrac{-3}{4}x + \dfrac{3}{2}$
    B. $y = \dfrac{-3}{4}x - 6$
    C. $y = \dfrac{-3}{4}x - \dfrac{3}{4}$
    D. $y = \dfrac{-3}{4}x + 3$
    E. $y = \dfrac{-3}{4}x - \dfrac{3}{2}$

3. Problem 1.3.14

    A. 5
    B. 16
    C. 11
    D. 8
    E. 0

4. Problem 1.3.20

    A. $\left(-\infty, 1.75\right]$

    B. $\left(1.75, \infty\right)$

    C. $\left[1.75, \infty\right)$

    D. $\left[-1.75, 1.75\right]$

    E. $\left(-\infty, 1.75\right)$

5. Problem 1.3.26

    A. $\left(-\infty, 1\right) \cup \left(1, 4\right) \cup \left(4, \infty\right)$

    B. $\left[4, \infty\right)$

    C. $\left(4, \infty\right)$

    D. $\left(-\infty, 4\right] \cup \left[4, \infty\right)$

    E. $\left(-\infty, 4\right) \cup \left(4, \infty\right)$

6. Problem 1.3.44, parts C and D

    A. $f(2) = -2$, $f(0) = -4$; $f(x) = 1$ when $x = -1$

    B. $f(2) = -1$, $f(0) = -4$; $f(x) = 1$ when $x = -3$

    C. $f(2) = -1$, $f(0) = -4$; $f(x) = 1$ when $x = -1$

    D. $f(2) = -2$, $f(0) = -4$; $f(x) = 1$ when $x = -3$

    E. $f(2) = 0$, $f(0) = \dfrac{-3}{2}$; $f(x) = 1$ when $x = -3$

7. Problem 1.3.46

    A. Vertical asymptote: $x = -3$; horizontal asymptote: $y = -2$

    B. Vertical asymptote: $x = 2$; horizontal asymptote $y = 3$

    C. Vertical asymptote: $x = 3$; horizontal asymptote $y = 2$

    D. Vertical asymptote: $x = 2$; horizontal asymptote $y = -3$

    E. Vertical asymptote: $x = -3$; horizontal asymptote: $y = 2$

8. Problem 1.4.16

     A. -6, 2
     B. 6, -2
     C. -6, -2
     D. 6, 2
     E. Not listed

9. Problem 1.4.34

     A. $y = \dfrac{13}{4x^2}$

     B. $y = \dfrac{4x^2 - 8}{5}$

     C. $y = \sqrt{\dfrac{5 + 8x}{4x}}$

     D. $y = \dfrac{5}{4x^2 - 8}$

     E. $y = \dfrac{5 + 8x}{4x^2}$

10. Problem 1.4.42

     A. $\left(-4, -1\right)$

     B. $\left(-1, \dfrac{-10}{3}\right)$

     C. $\left(-1, -4\right)$

     D. $\left(-1, 4\right)$

     E. $\left(-3, \dfrac{-14}{3}\right)$