Math 1330
Homework 10 (8.3)

Problem 8.3.12 refers to problem 12 in Chapter 8, Section 3 of the online text. Record your answers to all the problems in the EMCF titled "**Homework 10**."

1. Problem 8.3.12

   A. $\dfrac{x^2}{3} - (y+8)^2 = 1$

   B. $\dfrac{x^2}{48} - \dfrac{(y-8)^2}{16} = 1$

   C. $\dfrac{x^2}{1\big/3} - (y+8)^2 = 1$

   D. $\dfrac{x^2}{3} - \dfrac{(y-8)^2}{9} = 1$

   E. None of the above

2. Problem 8.3.14

   A. $\dfrac{(x-4)^2}{9} - \dfrac{(y+5)^2}{2} = 1$

   B. $\dfrac{(y-5)^2}{2} - \dfrac{(x+4)^2}{9} = 1$

   C. $\dfrac{(y+5)^2}{2} - \dfrac{(x-4)^2}{9} = 1$

   D. $\dfrac{(x+4)^2}{9} - \dfrac{(y-5)^2}{2} = 1$

   E. None of the above

3. Problem 8.3.22 e

   A. (0, 36) and (0, 25)

   B. $(-\sqrt{61}, 0)$ and $(\sqrt{61}, 0)$

   C. $(0, -\sqrt{61})$ and $(0, \sqrt{61})$

   D. (6, 0) and (5, 0)

   E. None of the above

4. Problem 8.3.22 f

   A. $y = \pm\dfrac{5}{6}x$

   B. $y = \pm\dfrac{6}{5}x$

   C. $y = \pm\dfrac{36}{25}x$

   D. $y = \pm\dfrac{25}{36}x$

   E. None of the above

5. Problem 8.3.24 b f

A. $(0, 0)$ $y = \pm\dfrac{1}{4}x$

B. $(4, 0)$ $y = \pm\dfrac{1}{4}x$

C. $(0, 0)$ $y = \pm 4x$

D. $(4, 0)$ $y = \pm 4x$

E. None of the above

6. Problem 8.3.26 b c

A. $(-5, -2)$; $(-3, -2), (-7, -2)$; 4
B. $(5, 2)$; $(3, -2), (7, -2)$; 4
C. $(4, 16)$; $(0, 16), (8, 16)$; 4
D. $(-5, -2)$; $(-1, -2), (-9, -2)$; 2
E. None of the above

7. Problem 8.3.28 f

A. $y + 6 = \pm\dfrac{4}{3}(x - 4)$

B. $y - 6 = \pm\dfrac{3}{4}(x + 4)$

C. $y - 6 = \pm\dfrac{4}{3}(x + 4)$

D. $y + 6 = \pm\dfrac{3}{4}(x - 4)$

E. None of the above

8. Problem 8.3.30 c

A. $(-1, 0), (3, 0)$; 4
B. $(0, 10), (0, -8)$; 18
C. $(1, 9), (1, -9)$; 18
D. $(9, 1), (-9, 1)$; 18
E. None of the above

9. Problem 8.3.30 d

A. $(-1, 0), (3, 0)$; 4
B. $(0, 10), (0, -8)$; 18
C. $(1, 9), (1, -9)$; 18
D. $(2, 1), (-2, 1)$; 4
E. None of the above

10. Problem 8.3.32 part e

A. $(5, -1)$ and $(-5, -1)$

B. $\left(2 + \sqrt{7}, -1\right)$ and $\left(2 - \sqrt{7}, -1\right)$

C. $(10, -1)$ and $(-6, -1)$

D. $(2, 5)$ and $(2, -3)$

E. $(7, -1)$ and $(-3, -1)$

11. Problem 8.3.32 part f

A. $y+1=\pm\dfrac{3}{4}(x-2)$

B. $y-1=\pm\dfrac{4}{3}(x+2)$
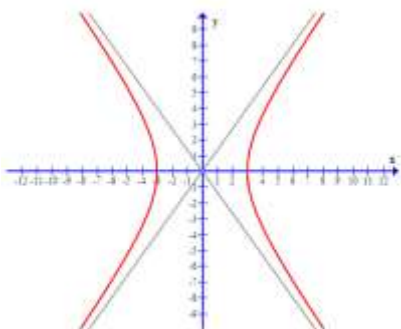
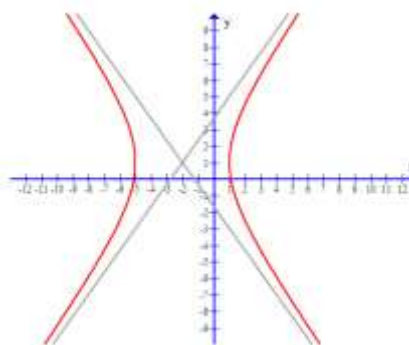C. $y-1=\pm\dfrac{3}{4}(x+2)$

D. $y-2=\pm\dfrac{4}{3}(x+1)$

E. $y+1=\pm\dfrac{4}{3}(x-2)$

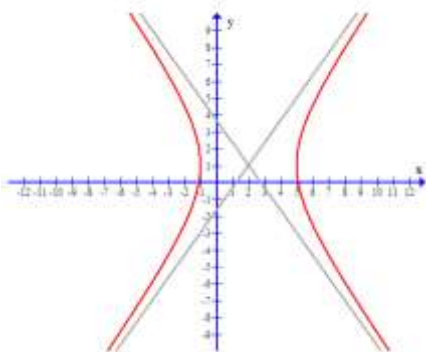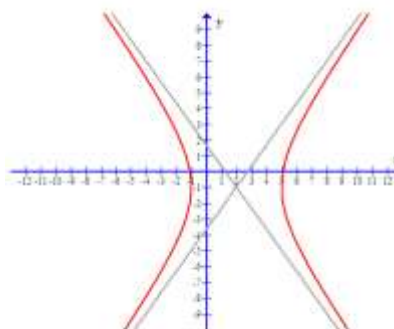12. Problem 8.3.32: Which of these could be the graph of the hyperbola?
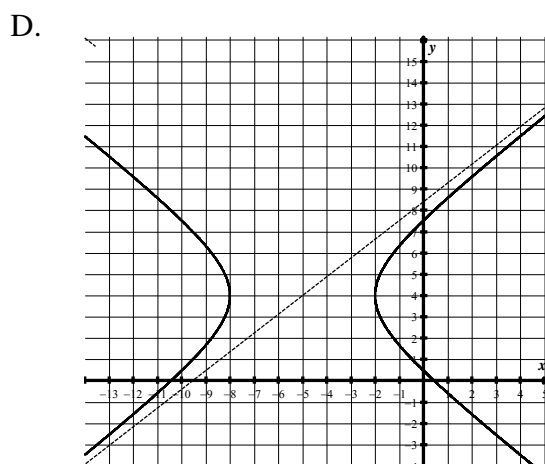
A.

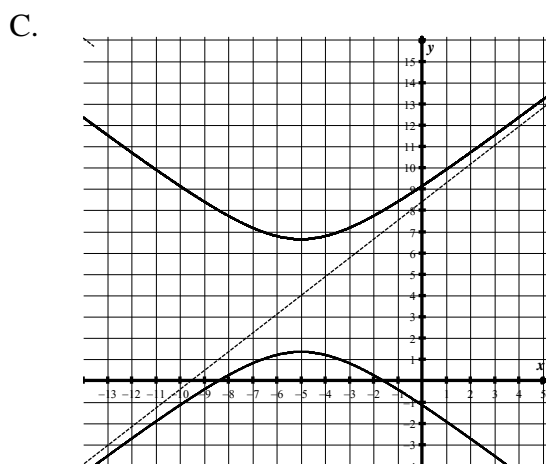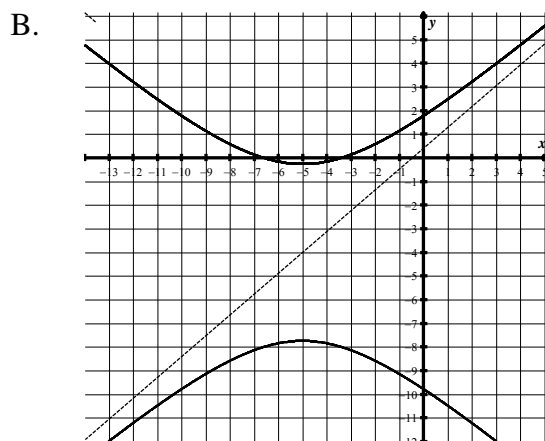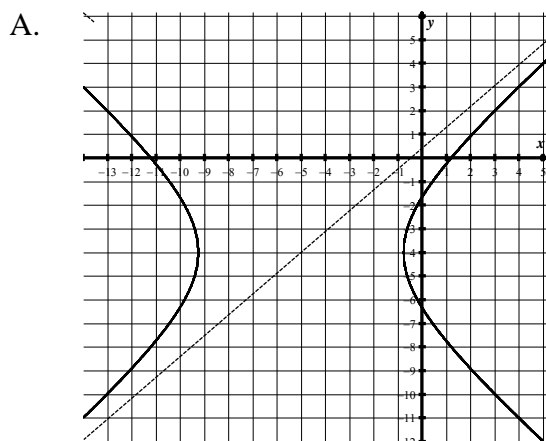B.

C.

D.

E.
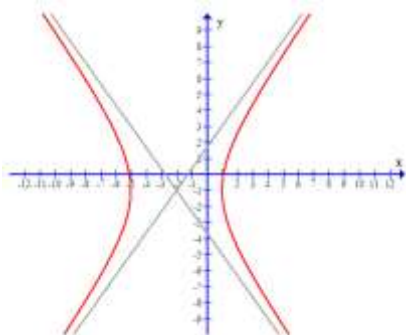
13. Problem 8.3.34: Which of these could be the graph of the hyperbola?

A.

B.

C.

D.

14. Problem 8.3.38

A. $\dfrac{x^2}{49} - \dfrac{y^2}{9} = 1$

B. $\dfrac{x^2}{9} - \dfrac{y^2}{49} = 1$

C. $\dfrac{y^2}{9} - \dfrac{x^2}{49} = 1$

D. $\dfrac{y^2}{49} - \dfrac{x^2}{9} = 1$

E. None of the above

15. Problem 8.3.42

A. $\dfrac{(y-5)^2}{9} - \dfrac{(x-2)^2}{49} = 1$

B. $\dfrac{(y+5)^2}{49} - \dfrac{(x+2)^2}{9} = 1$

C. $\dfrac{(y-5)^2}{49} - \dfrac{(x-2)^2}{9} = 1$

D. $\dfrac{(x-2)^2}{49} - \dfrac{(y-5)^2}{9} = 1$

E. $\dfrac{(x-2)^2}{9} - \dfrac{(y-5)^2}{49} = 1$