# EMCF01 – Math 1432, 13209

The answer sheet for this assignment can be found by logging into *CourseWare* at http://www.casa.uh.edu, selecting **Math 1432(13209)**, clicking on the **EMCF** tab at the top of the page, and selecting **EMCF01**.

1. Test 1 in this class is an online test that is available at http://www.casa.uh.edu. The test covers the prerequisite material for this course.
   a. True
   b. False
2. Test 1 has 2 attempts, and the highest grade is kept. The final attempt is due no later than 11:59pm on Thursday of the second week of class.
   a. True
   b. False
3. Test 1 counts the same as each of Tests 2, 3 and 4 in this class.
   a. True
   b. False
4. There is a Practice Test for Test 1 that is available online, and it counts as a quiz grade in this class.
   a. True
   b. False
5. Written homework is due each Monday in recitation (lab), unless there is no class that day.
   a. True
   b. False
6. A written quiz will be given every Friday in recitation (lab), including the Friday of the first week of classes. The grade on the quiz will automatically turn into a 0 if the homework problems are not submitted the following week in the manner described in the syllabus.
   a. True
   b. False
7. The function $f(x) = -2x + 3$ is invertible. Give $f^{-1}(3)$.
   a. -1
   b. 0
   c. 1
   d. 1/2
   e. None of these.

8. The function $f(x) = -2x + 3$ is invertible. Give $\dfrac{d}{dx} f^{-1}(x)$.
   a. 1/2
   b. -2
   c. 2
   d. -1/2
   e. None of these.

9. The function $f(x) = x^3 + x$ is invertible. Give the slope of the tangent line to the graph of $f^{-1}(x)$ at $x = 2$.
    a. -1/2
    b. 4
    c. 1/4
    d. 2
    e. None of these.

10. The function $f(x) = x^3 + x$ is invertible. Give $f^{-1}(2)$.
    a. 1
    b. 2
    c. -1
    d. 1/2
    e. None of these.

11. The function $f(x) = -2x + 3$ is invertible. Give the slope of the tangent line to the graph of $f^{-1}(x)$ at $x = 2$.
    a. 1
    b. 2
    c. -1
    d. 1/2
    e. None of these.

12. The graph of f is shown below. Determine whether f is invertible.
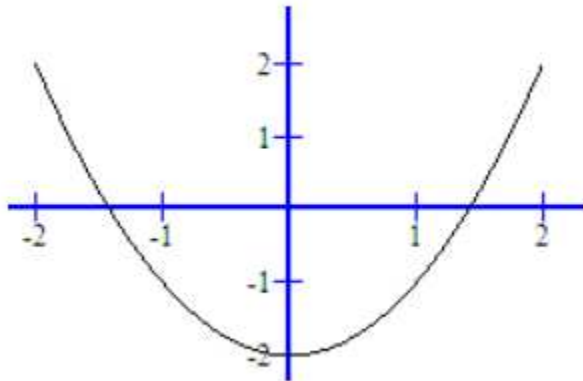
    a. The function is invertible.
    b. The function is not invertible.

13. The graph of f is shown below. Determine whether f is invertible.
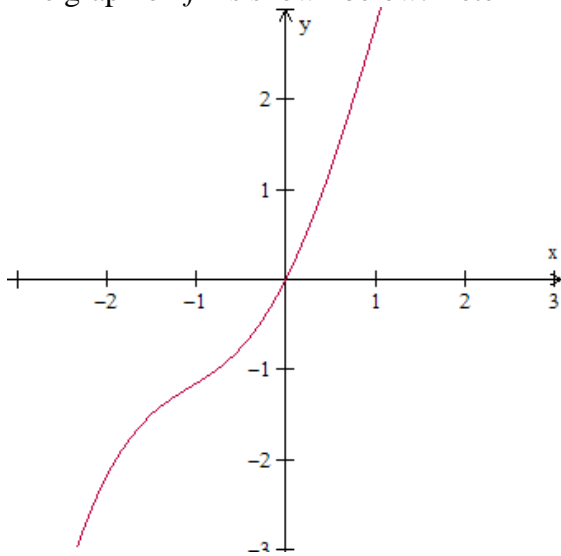
   a. The function is invertible.
   b. The function is not invertible.

14. Determine whether $f(x) = x^4 + 3x^3 + 1$ is invertible.

   a. The function is invertible.
   b. The function is not invertible.

15. The function $f(x) = x^5 + 3x^3 + x + 1$ is invertible. Give $\left(f^{-1}\right)'(1)$.

   a. -1
   b. -2
   c. 1/2
   d. 2
   e. 1
   f. None of these.

16. The function $f(x) = x^5 + 3x^3 + x + 1$ is invertible. Give the y-intercept for the tangent line to the graph of $f^{-1}(x)$ at $x = 0$.

   a. -3
   b. -2
   c. -1
   d. 1
   e. 2
   f. None of these.

17. Suppose $(f^{-1})'(1) = 1/3$ and $f(3) = 1$. Give the slope of the tangent line to the graph of $f(x)$ at $x = 3$.

    a. -3
    b. -2
    c. 1
    d. 2
    e. 3
    f. None of these.

18. Suppose $f(2) = 4$ and $f'(2) = -3$. Give the slope of the tangent line to the graph of $f^{-1}(x)$ at $x = 4$.

    a. -1/3
    b. -1/2
    c. 1
    d. 1/2
    e. 1/3
    f. None of these.

19. Suppose $f(-1) = 3$ and $f'(-1) = 2$. Give the y-intercept of the tangent line to the graph of $f^{-1}(x)$ at $x = 3$.

    a. -3/2
    b. -2
    c. -5/2
    d. -3
    e. -7/2
    f. None of these.

20. Suppose $(f^{-1})'(1) = 1/3$ and $f(3) = 1$. Give the y-intercept of the tangent line to the graph of $f(x)$ at $x = 3$.

    a. -9
    b. -8
    c. -7
    d. -6
    e. -5
    f. None of these.