EMCF16 – 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 **EMCF16**.

1. The polar curve $r = 2\cos(\theta)$ is a
    a. horizontal line
    b. vertical line
    c. parabola
    d. circle
    e. hyperbola
2. The polar curve $r = 3\sin(\theta)$ is a
    a. horizontal line
    b. vertical line
    c. parabola
    d. circle
    e. hyperbola
3. The polar curve $r = 3\tan(\theta)\sec(\theta)$ is a
    a. horizontal line
    b. vertical line
    c. parabola
    d. circle
    e. hyperbola
4. The polar curve $r = 3\cot(\theta)\csc(\theta)$ is a
    a. horizontal line
    b. vertical line
    c. parabola
    d. circle
    e. hyperbola
5. The polar curve $r = 2\sec(\theta)$ is a
    a. horizontal line
    b. vertical line
    c. parabola
    d. circle
    e. hyperbola
6. The polar curve $r = \csc(\theta)$ is a
    a. horizontal line
    b. vertical line
    c. parabola
    d. circle
    e. hyperbola

7. The curve $(x-1)^2 + y^2 = 1$ is given by the polar curve
   a. $r = \cos(\theta)$
   b. $r = 2\cos(\theta)$
   c. $r = 2\sin(\theta)$
   d. $r = \sin(\theta)$
   e. None of these.

8. The curve $x^2 + (y-2)^2 = 4$ is given by the polar curve
   a. $r = 4\cos(\theta)$
   b. $r = 2\cos(\theta)$
   c. $r = 2\sin(\theta)$
   d. $r = 4\sin(\theta)$
   e. None of these.

9. The curve $x^2 + y^2 = 1$ is given by the polar curve
   a. $r = \cos(\theta)$
   b. $r = 2\cos(\theta)$
   c. $r = 2\sin(\theta)$
   d. $r = \sin(\theta)$
   e. None of these.

10. Give the number of different polar representations for the point (1,1).
   a. There is exactly one.
   b. There are exactly two.
   c. This is a special point that does not have a polar representation.
   d. There are infinitely polar representations for this point.
   e. None of these.