1. Change the following from polar coordinates to rectangular coordinates:

   (a) $(5, \frac{\pi}{3})$

   (b) $(7, \frac{11\pi}{6})$

   (c) $(-4, \frac{3\pi}{2})$

2. Change the following from rectangular coordinates to polar coordinates:

   (a) $(-5, 0)$

   (b) $(2, 2\sqrt{3})$

   (c) $(5, -7)$

3. Write the following equations in polar coordinates:

   (a) $x^2 + y^2 = 49$

   (b) $y = -3x$

   (c) $y = x - 5$

   (d) $(x - 1)^2 + y^2 = 1$

4. Graph the following polar equations:

   (a) $r = 2\sin\theta$

   (b) $r = 1 + \cos\theta$

   (c) $r = 2\sin(2\theta)$

   (d) $r = 2 + 4\cos\theta$