1. Find the equation of the line which goes through the point (2,-1) and is parallel to the line given by the equation \(2x + 3y = 10\).

2. Find the derivatives of the following functions:
   a) \(f(x) = 2x^3 - 8x^2 + 1\)
   b) \(g(x) = (x^2 + 1)(x^{-2} + 1)\)
   c) \(h(x) = \frac{x + 1}{x^2 + 1}\)

3. Find the derivatives of the following functions:
   a) \(f(x) = (\cos(2x) + 1)^3\)
   b) \(g(x) = (2x + 1)^{-1}\)

4. Find the equation of the line tangent to the curve \(y = (x^2 - 1)^2\) at (2,9).

5. An object moves in a straight line so that its position at time \(t\) is given by \(x(t) = (\sin t)^2\). What is the velocity of the object when \(t = 3\pi/4\)?