

## Answer on Question #83006 – Math – Analytic Geometry

### Question

Find the equation of the normal to the curve  $y = x^3 - x^2$  at point  $(1,0)$ .

### Solution

$$y = x^3 - x^2$$

$$y' = 3x^2 - 2x.$$

Slope of the tangent line:

$$m = y'(1) = 3 - 2 = 1.$$

Slope of the normal line:

$$n = -\frac{1}{m} = -1.$$

Equation of the normal line:

$$y - 0 = -1 * (x - 1), \text{ that is, } y = -x + 1.$$

**Answer:**  $y = -x + 1$