Answer on Question #51515 – Math – Differential Geometry

Find the slope of c(t)=(t/2,(t^(2)/4) -t) at t=2

Solution

$$c(t) = \left(\frac{t}{2}; \frac{t^2}{4} - t \right)$$

The slope is given by the next formula:

$$slope(t) = \left(\frac{dc_y / dt}{dc_x / dt} \right) = \frac{t/2 - 1}{1/2} = t - 2$$

Then

$$slope(2) = 2 - 2 = 0$$

Answer: $slope(2) = 0$.