Answer on Question #53945 – Math – Calculus

The position of an object at time t is given by s(t) = 7 - 14t. Find the instantaneous velocity at t = 7 by finding the derivative.

Solution

The derivative of s(t) is

$v(t) = s'(t) = (7 - 14t)' = (7)' - (14t)' = 0 - 14 = -14,$ hence the instance velocity at t = 7 is $\boldsymbol{v(7) = -14}$.

Answer: -14.