

Quiz #6

SHOW YOUR WORK

An object is moving in the xy -plane; the units on each axis are in “feet”. Its coordinate at time t seconds is $(t - 2, -t)$.

1. (5 points) Find a formula for the function $d(t)$ that calculates the distance between the object and the point $(3, -1)$ at t seconds.

2. (5 points) Compute a formula for the *second* derivative of $d(t)$.

Quiz #6

SHOW YOUR WORK

An object is moving in the xy -plane; the units on each axis are in “feet”. Its coordinate at time t seconds is $(t - 1, -2t)$.

1. (5 points) Find a formula for the function $d(t)$ that calculates the distance between the object and the point $(3, -1)$ at t seconds.

2. (5 points) Compute a formula for the *second* derivative of $d(t)$.