Lesson 6-6 Applications



Set 6-6b

A vehicle accelerating uniformly from rest at a rate of $4m/s^2$ can be described by the function $d(t) = 2t^2$, where t is time, in seconds and d is distance, in meters.

1) *Graph this function.*

- **2)** What are the domain and range?
- **3)** How long does it take the vehicle to travel 8m?
- **4)** *After 6 seconds, how far has the vehicle traveled?*
- **5)** *After 12 seconds, how far has the vehicle traveled? Explain why this is not twice as far as the previous answer.*