

Show all work and circle/box your final answer. All answers must be simplified unless stated otherwise.

1. A tortoise is walking along a straight line with position given by

$$s(t) = t^2 - 2t + 1 \text{ for } 0 \leq t \leq 3$$

(Distance is measured in meters and time is measured in minutes). At what time(s) between 0 and 3 minutes is he stopped?

2. A ice cube is **melting** at a rate of  $4\text{cm}^3$  per minute. How fast is the length of the side decreasing when the side is  $2\text{cm}$ ? (The volume of a cube is given by  $V = s^3$ )