

Name: _____

Show all work clearly and in order. Please box your answers. 10 minutes.
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1. A particle is moving on a straight line with acceleration $a(t) = 2\sin(t) + 3$. Its velocity at $t = 0$ is $v(0) = 0$ and its position at time $t = 0$ is $s(0) = 10$.

(a) Find the velocity function of the particle:

(b) Find the velocity of the particle at $t = 1$. $v(1) =$

(c) Find the position function of the particle:

(d) Find the position of the particle at $t = 1$. $s(1) =$