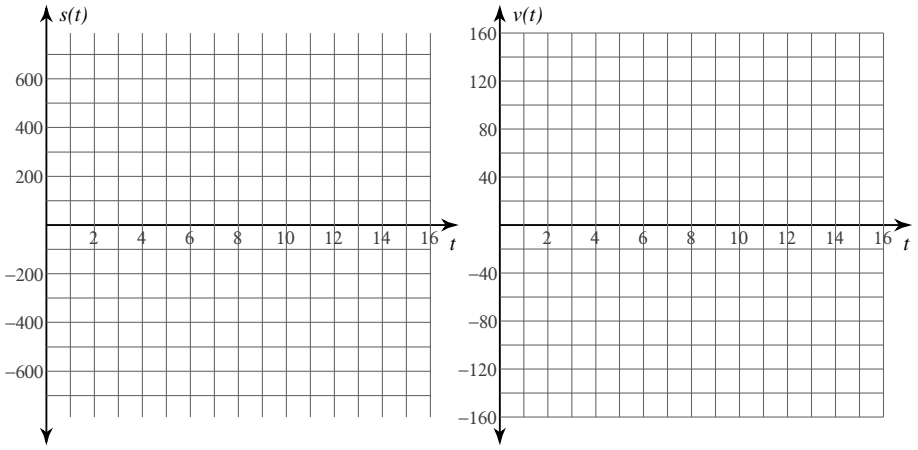
Kuta Software - Infinite Calculus Name_____

Motion Along a Line Revisited

Date_____ Period____

A particle moves along a coordinate line. Its velocity function is $v(t)$ for $t \geq 0$. For each problem, find the position function $s(t)$. You may use the blank graphs to sketch $s(t)$ and $v(t)$.

1) $v(t) = 3t^2 - 22t;\ s(0) = 0$



A particle moves along a coordinate line. Its acceleration function is $a(t)$ for $t \geq 0$. For each problem, find the position function $s(t)$ and the velocity function $v(t)$. You may use the blank graphs to sketch $s(t)$, $v(t)$, and $a(t)$.

2) $a(t) = -12t^2 + 60t;\ s(0) = 0;\ v(0) = 0$