P2.1-1)[fe] The position of a particle moving along a straight line is given by $s = (1/2)(bt^2 + 2ct + d)$, where t is time and b, c and d are constants. Determine the particle's acceleration.

Given:

Find:

Solution:

Derive the particle's velocity.

Circle the equation that you will use?

$v = \frac{ds}{dt}$ $\quad$ $a = \frac{dv}{dt}$ $\quad$ $a\,ds = v\,dv$

$v(t)$ = _____

Derive the particle's acceleration.

Circle the equation that you will use?

$v = \frac{ds}{dt}$ $\quad$ $a = \frac{dv}{dt}$ $\quad$ $a\,ds = v\,dv$

$a(t)$ = _____