

### Exercise 3

Consider the time-dependent scalar function:

$$s = x + y + zt$$

Evaluate both sides of Eq. A.5-5 over the volume bounded by the planes:  $x = 0$ ,  $x = t$ ;  $y = 0$ ,  $y = 2t$ ;  $z = 0$ ,  $z = 4t$ . The quantities  $x, y, z, t$  are dimensionless.