

Let solve it using the table:

Moving	$t, s$	$v, m/s$	$S, m$	$a, m/s^2$
from rest	10	$v = at = 2 * 10 = 20$	100	2
proceeds at the constant velocity	$t = \frac{S}{v} = \frac{600}{20} = 30$	20	600	0
to rest	20	$v_0 = 20, v = 0$	$S = \frac{ a t^2}{2} = \frac{1 * 400}{2} = 200$	$a = \frac{v - v_0}{t} = \frac{0 - 20}{20} = -1$
<b>Total</b>	$t_{total} = 10 + 30 + 20 = 60$	$v_{max} = 20$	$S_{total} = 100 + 600 + 200 = 900$	-

So, answer:

$$v_{max} = 20 \text{ m/s}$$

$$S_{total} = 900m$$

$$t_{total} = 60s$$

$$v_{av} = \frac{S_{total}}{t_{total}} = \frac{900}{60} = 15m/s$$