

Due date for Derby Racers:
Tuesday, Nov. 22nd

Put your name on your work!
Check Pinnacle for missing
assignments

Acceleration If You know:

<u>If you know</u>	<u>You can find</u>	<u>By using</u>	<u>Units</u>
v_0, v, t	a	$a = \frac{v - v_0}{t}$	$\frac{m}{s^2} + \text{DIRECTION}$
a, v_0, v	t	$t = \frac{v - v_0}{a}$	s
a, v_0, t	v	$v = v_0 + at$	$\frac{m}{s} + \text{DIRECTION}$
a, v, t	v_0	$v_0 = v - at$	$\frac{m}{s} + \text{DIRECTION}$

Rat is running with velocity of 7.2 m/s . It accelerates at 4.2 m/s^2 for 11.5 s . What is its final velocity?

1. ① $v_0 = 7.2 \text{ m/s}$, $a = 4.2 \text{ m/s}^2$, $t = 11.5 \text{ s}$

② v_f

③ $v = v_0 + at$

④ $v = 7.2 + (4.2)(11.5) = 55.5$

⑤ $v = 55.5 \text{ m/s}$ forwards