

$$d = \frac{(v_i + v_f)}{2} t$$

$$d = \frac{at^2}{2} + v_i t$$

Betty is drag racing. She hits the green light and speeds along, accelerating at  $2.39 \text{ m/s}^2$  for 12.9 seconds. How far was her race?

We know:

What d formula has  $v_i$ , a and t?

$$d = \frac{at^2}{2} + v_i t \quad v_i t \text{ drops off (why?)}$$

Lauren is riding her trike at  $1.39 \text{ m/s}$  when she starts careening down a hill for 8.39 seconds, reaching a speed of  $9.75 \text{ m/s}$ . How far did she cruise?

We know:

What d formula has  $v_i$ ,  $v_f$  and t?

Javi's car accelerates at  $4.29 \text{ m/s}^2$ . He punches it when the light turns green and floors it 139.4 m down the road. How long did it take to fly down the street?

We know: