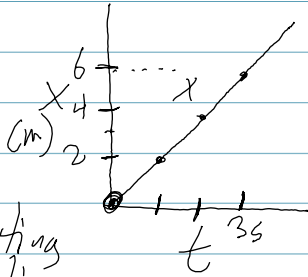


# Position vs. time graphs



An object starts at the origin & moves away at a constant speed.

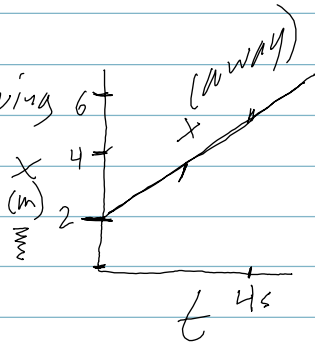
1) y-int → starting position

$$x = 2 \text{ m/s}(t)$$

$$x = 2(1.5) \Rightarrow \boxed{3\text{m}}$$

2) Slope

→ a. dir. moving  
b. velocity



- starts away from origin  
→ moving away  
→ constant speed

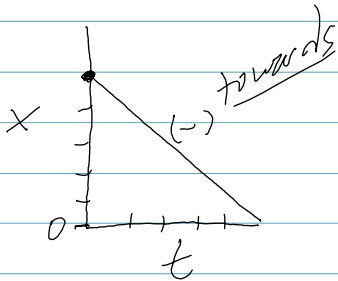
$$x = 1.5 \text{ m/s}(t) + 2\text{m}$$

$$x_f = 1.5(10) + 2\text{m} \quad \boxed{x_f = 17\text{m}}$$

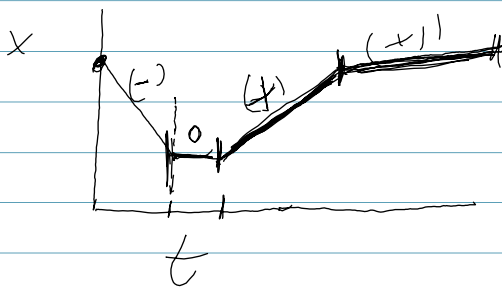
$$\Delta x = x_f - x_0$$

$$\Delta x = 17 - 2$$

$$\boxed{\Delta x = 15\text{m}}$$



An object starts away from the origin and moves toward the origin at a constant speed.



- start away from origin towards origin at constant speed  
- not moving  
= moving away - constant speed  
- moving away at constant speed - moving slower than before