

a) $\Delta X_{0-8} = ?$

b) IF IT STARTED AT $X_0 = 10m$; $X_F = ?$ AT $t=8$.

$$\left(\frac{m}{s}\right)(s) = m$$

Sep 22-9:54 AM

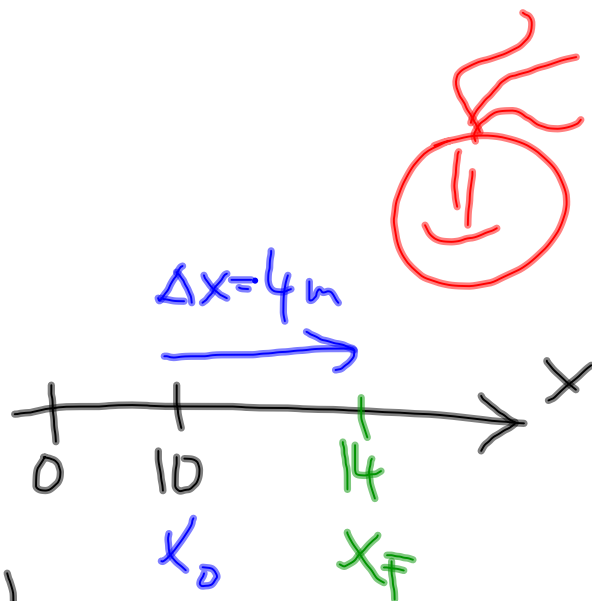
$\Delta X = \text{AREA UNDER THE } v-t \text{ GRAPH.}$

a) $\Delta X_{0-8} = 8 - 4$

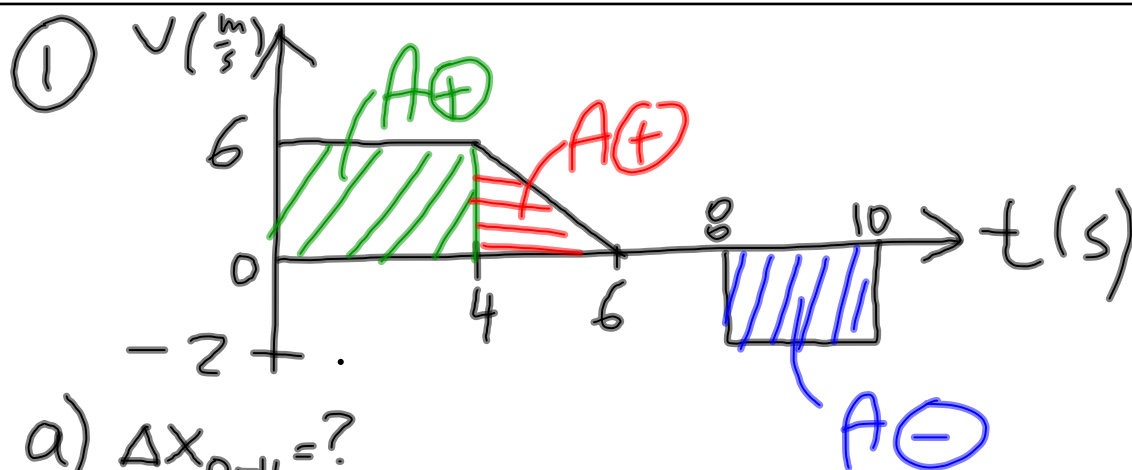
$$\Delta X_{0-8} = 4m$$

b) $\Delta X = X_F - X_0$
 $4 = X_F - 10$

$$X_F = 14m$$



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- a) $\Delta x_{0-4} = ?$
 b) $\Delta x_{4-6} = ?$
 c) $\Delta x_{0-10} = ?$
 d) IF $x_0 = -20 \text{ m}$; $x_f = ?$ AT $t = 10 \text{ s}$.

Sep 23-8:42 AM

a)

$$A = b(4) = 24 \text{ meters}^{\text{m}}$$

$$\Delta x_{0-4} = 24 \text{ m}$$

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b)

$$A = \frac{1}{2} (2)(6) \quad A = 6 \text{ m}$$

$$\boxed{\Delta X_{4-6} = 6 \text{ m}}$$

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$$c) \quad \Delta X_{0-10} = \Delta X_{0-4} + \Delta X_{4-6} + \cancel{\Delta X_{6-8}} + \Delta X_{8-10}$$

$$\Delta X_{0-10} = 24 + 6 + 0 + \underbrace{(2(-2))}_{-4}$$

$$\boxed{\Delta X_{0-10} = 26 \text{ m}}$$

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d) $X_F = ?$ At $t = 10\text{ s}$

$$\Delta X_{0-10} = X_F - X_0$$

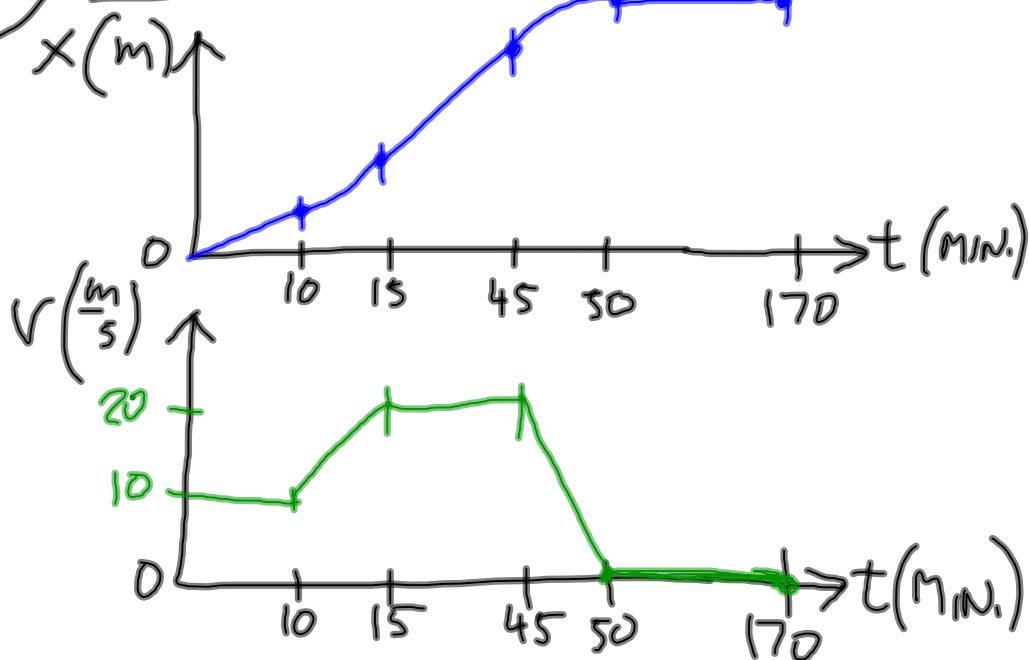
$$26 = X_F - (-20)$$

$$X_F = 6\text{ m}$$



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(HW)

SOLUTIONS

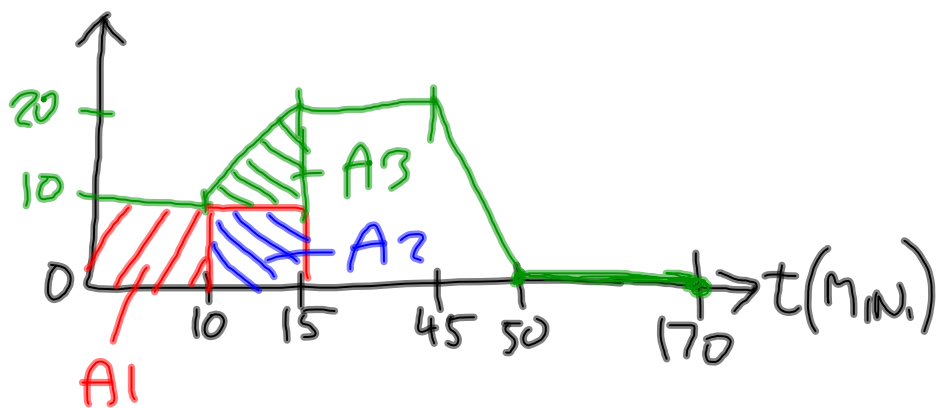
Sep 23-9:09 AM

ADD. QUESTION.

1) $\Delta x_{0-15} = ?$

2) x_F AT 15 MIN., IF $x_0 = 500$ m

Sep 23-9:28 AM



Sep 23-9:09 AM

$$1) \quad A = A_1 + A_2 + A_3$$
$$A = (10 \times 10) + (5 \times 10) + \frac{1}{2}(10)(5)$$
$$A = 175 \text{ m}$$

$$\Delta X_{0-15} = A$$

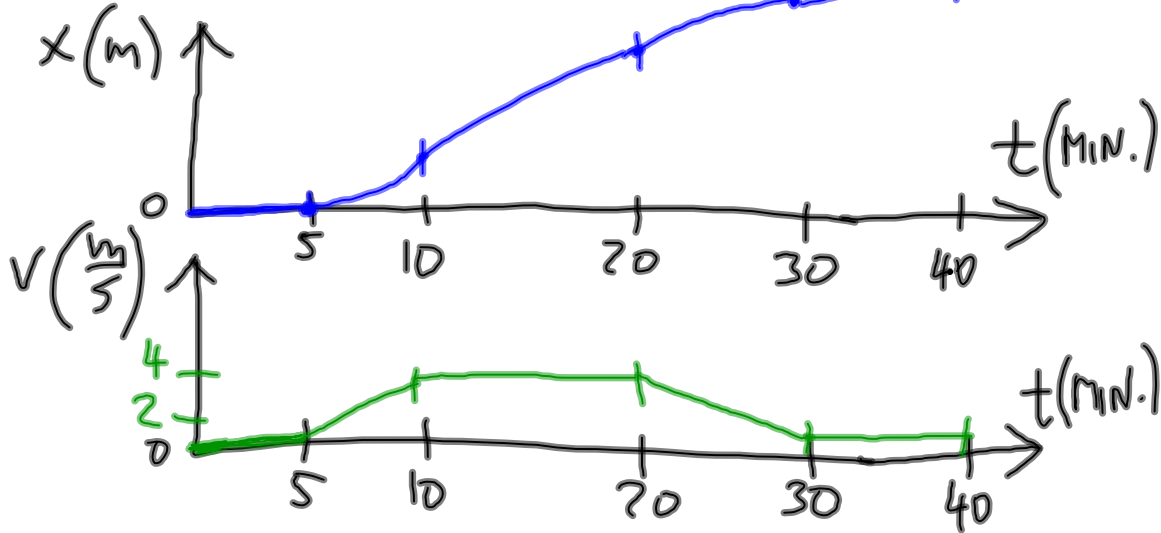
$$\boxed{\Delta X_{0-15} = 175 \text{ m}}$$

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$$2) \quad \Delta X_{0-15} = X_F - X_0$$
$$175 = X_F - 500 \text{ m}$$
$$\boxed{X_F = 675 \text{ m}}$$

Sep 23-9:42 AM

Graph $x-t$ and $v-t$ for the following story. A bunny was sitting for 5 minutes. Then he was speeding up for 5 minutes to velocity of 4 m/s. Then he was running for 10 minutes with const. velocity. Then he was slowing down for 10 minutes to a new speed of 2 m/s and maintaining it for the next 10 minutes.



Sep 23-9:30 AM