

$$1 \text{ km} = 1000 \text{ meters}$$

$$80 \text{ m} ?$$

$$1 \text{ km} = 1000 \text{ m}$$

$$x \text{ km} = 80 \text{ m}$$

$$\frac{1}{x} = \frac{1000}{80} \quad \text{or} \quad x = \frac{80}{1000} \Rightarrow x = 0.08$$

$$80 \text{ m} = 0.08 \text{ km}$$

$$4.0 \text{ minutes}, \quad 0.2 \text{ miles}$$

$$\text{arg. } v = \frac{\text{distance}}{\text{time}}$$

a)  $v$ , in miles/min

b) miles/hr

c) km/hr

d) m/sec

a)  $v$  in mi/min?

$$v = \frac{0.2}{4} = 0.05 \text{ mi/min}$$

b)  $v$  in mi/hr

$$0.05 \frac{\text{mi}}{\text{min}} = \frac{0.05 \text{ mi}}{\frac{1}{60} \text{ hr}}$$

$$= 3 \frac{\text{mi}}{\text{hr}}$$

$$1 \text{ min} = \frac{1}{60} \text{ hr}$$

$$1 \text{ mi} = 1.6 \text{ km}$$

c)  $3 \frac{\text{mi}}{\text{hr}} = 3 \times 1.6 \frac{\text{km}}{\text{hr}} = 4.8 \frac{\text{km}}{\text{hr}}$

d)  $\frac{\text{met}}{\text{sec}}$  ?

$$4.8 \frac{\text{km}}{\text{hr}} = \frac{4.8 \times 1000 \text{ m}}{60 \times 60 \text{ sec}}$$

$$1 \text{ km} = 1000 \text{ met}$$

$$1 \text{ hr} = 60 \times 60 \text{ sec}$$

$$v = 1.33 \frac{\text{m}}{\text{sec}}$$