

$$7. v_{sp} = 95 \text{ km/h}$$

$$t = 45 \text{ min}$$

$$d = ?$$

$$45 \text{ min} \times \frac{1 \text{ h}}{60 \text{ min}} = 0.75 \text{ h}$$

$$v_{sp} = \frac{d}{t}$$

$$0.75 \text{ h} \cdot 95 \text{ km/h} = \frac{d}{0.75 \text{ h}} \cdot 0.75 \text{ h}$$

$$71.25 \text{ km} = d$$

$$8. 59 \text{ m [E]}$$

$$35 \text{ m [E]}$$

$$112 \text{ m [W]}$$

$$89 \text{ m [E]}$$

$$46 \text{ m [W]}$$

$$t = 86 \text{ s}$$

$$d = 59 + 35 + 112 + 89 + 46$$

$$d = 341 \text{ m}$$

$$\vec{d} = 59 + 35 + (-112) + 89 + (-46)$$

$$\vec{d} = 25 \text{ m [E]}$$

$$a) v_{sp} = \frac{d}{t}$$

$$= \frac{341 \text{ m}}{86 \text{ s}}$$

$$= 3.97 \text{ m/s}$$

$$b) \vec{v}_{avg} = \frac{\vec{d}}{t}$$

$$\vec{v}_{avg} = \frac{25 \text{ m [E]}}{86 \text{ s}}$$

$$\vec{v}_{avg} = 0.29 \text{ m/s [E]}$$