

### Velocity Problem 3 (redo)

① 1a)  $v = 22.7 \text{ m/s}$   $t = 16.5 \text{ s}$

1b)  $d$

2)  $v = \frac{d}{t}$

3)  $22.7 = \frac{d}{16.5}$

4)  $16.5 \cdot 22.7 = \frac{d}{16.5} \times 16.5$

$374.55 \text{ m}$   
through the air =  $d$

5)  $v = \frac{d}{t}$

$$t \times 22.7 \text{ m/s} = \frac{374.55 \text{ m}}{t} \times t$$

$$\frac{22.7 \times t}{22.7} = \frac{374.55}{22.7}$$

$$t = 16.5 \text{ s} \checkmark$$

$$v_0 = \frac{u}{t}$$

$$m = \frac{d}{u}$$

$$v = \frac{u}{t}$$

$$a = \frac{(v_f - v_0)}{t} \quad (2)$$

$$W = F \cdot d$$

$$F = m \cdot a$$

$$3) \boxed{U_F} = \frac{1542.6}{88.71}$$

$$4) \boxed{v = \text{---} \text{ m/s North}}$$

$$5) v = \frac{d}{t}$$

$$t \text{ v ---} = \frac{1542.6}{\boxed{t}} \text{ s}^*$$