

✓ ① Data

✓ ② EQUATION

✓ ③ SUBSTITUTION

✓ ④ ⑤ Answer / UNITS

Speed leg A

$$\textcircled{1} \quad d_A = 6\text{m} \quad s_A = ?$$

$$t_A = 4\text{s}$$

$$\textcircled{2} \quad s_A = \frac{d}{t}$$

$$\textcircled{3} \quad s_A = \frac{6\text{m}}{4\text{s}}$$

$$\textcircled{4} \quad s_A = 1.5\text{m/s}$$

⑤

Speed leg B

①  $d_B = 39 \text{ m}$

$t_B = 22 \text{ s}$

$S_B = ?$

②  $S = d/t$

③  $S = \frac{39 \text{ m}}{22 \text{ s}}$

④/5  $S = 1.77 \text{ m/s}$

Speed leg C

①  $d_C = 47 \text{ m}$

$t_C = 29 \text{ s}$

$S_C = ?$

②  $S = d/t$

③  $S_C = \frac{47 \text{ m}}{29 \text{ s}}$

④/5  $S_C = 1.62 \text{ m/s}$

Speed leg D

$$\begin{aligned} \textcircled{1} \quad d_D &= 60 \text{ m} \\ t_D &= 35 \text{ s} \\ S_D &= ? \end{aligned}$$

$$\textcircled{2} \quad S = d/t$$

$$\textcircled{3} \quad S = \frac{60 \text{ m}}{35 \text{ s}}$$

$$\textcircled{4/5} \quad S = 1.71 \text{ m/s}$$

Speed total

$$\begin{aligned} \textcircled{1} \quad d_T &= 152 \text{ m} \\ t_T &= 90 \text{ s} \\ S_T &= ? \end{aligned}$$

$$\textcircled{2} \quad S = d/t$$

$$\textcircled{3} \quad S = \frac{152 \text{ m}}{90 \text{ s}}$$

$$\textcircled{4/5} \quad S = 1.69 \text{ m/s}$$

Velocity leg A

$$\textcircled{1} x_A = 6 \text{ m E}$$

$$t_A = 4 \text{ s}$$

$$v_A = ?$$

$$\textcircled{2} v = x/t$$

$$\textcircled{3} v_A = \frac{6 \text{ m E}}{4 \text{ s}}$$

$$\textcircled{4/5} v_A = 1.5 \text{ m/s E}$$

Velocity leg B

$$\textcircled{1} x_B = 39 \text{ m S}$$

$$t_B = 22 \text{ s}$$

$$v_B = ?$$

$$\textcircled{2} v = x/t$$

$$\textcircled{3} v_B = \frac{39 \text{ m S}}{22 \text{ s}}$$

$$\textcircled{4/5} v_B = 1.77 \text{ m/s South}$$

Velocity leg C

①  $x_c = 47 \text{ m E}$

$t_c = 29 \text{ s}$

$v_c = ?$

②  $v = x/t$

③  $v_c = \frac{47 \text{ m E}}{29 \text{ s}}$

④  $v_c = 1.62 \text{ m/s E}$

Velocity leg D

①  $x_D = 60 \text{ m S}$

$t_D = 35 \text{ s}$

$v_D = ?$

②  $v = x/t$

③  $v_D = \frac{60 \text{ m S}}{35 \text{ s}}$

④  $v_D = 1.71 \text{ m/s South}$

## Velocity Total

①  $x_T = 80 \text{ m SE}$

$t_T = 90 \text{ s}$

$v_T = x/t$

②  $v = x/t$

③  $v_T = \frac{80 \text{ m SE}}{90 \text{ s}}$

④  $v_T = .89 \text{ m/s SE}$

## NOTES:

- ①  $d + x$  FOR EACH leg  
has SAME VALUE  
 $d$  - NO DIRECTION (Scalar)  
 $x$  - DIRECTION (Vector)
- ②  $s + v$  FOR EACH leg  
has SAME VALUE  
 $s$  - NO DIRECTION (Scalar)  
 $v$  - DIRECTION (Vector)
- ③ Total  $d + x$  ARE NOT  
the same values
- ④ Total  $s + v$  ARE NOT  
the same values.