

X ----- Y

M

$$D_X = R_X T$$

+  $D_Y = R_Y T$

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$$D_X + D_Y = R_X T + R_Y T$$

$$D = T(R_X + R_Y)$$

$$T = D / (R_X + R_Y) \text{ (in hours)}$$

$$T_{\min} = T \times 60$$

$$D = D_X + D_Y$$

- 1) Read in all the information into appropriate variables
- 2) Calculate the time (in hours) based on input values.
- 3) Convert time into minutes and store in a different variable.
- 4) Plug back in time in hours to calculate distances traveled by both trains.
- 5) Output all three results.

20 mph, 80 mph, distance is 2 miles. Time  $2/100 = 1/50$  hours =  $60/50$  min = 1.2 min

Distances =  $20/50 = .4$  miles,  $80/50 = 1.6$  miles