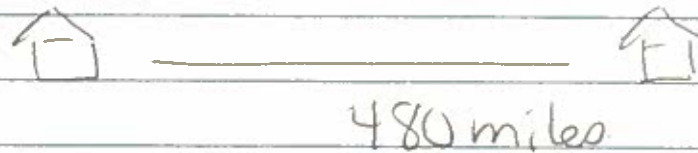


27. # 9 Rate Dist Time.

Two trains leave stations 480 miles apart.



Traveling toward each other



This means when the trains meet the total distance will be 480. Call them train A & train B.

Train A travels 90 mph.

Train B travels 110 mph.

How long will it take for two trains to meet? Call this X.

$R \cdot T = D$			
(A) →	90	X	90x
(B) ←	110	X	110x

What is the relationship between Rate, distance & time?

$$R = \frac{D}{T}, \text{ solve for } D.$$

But $A + B = 480$
dist. dist. dist.

$$T \cdot R = \frac{D}{T} \cdot T$$

$$90x + 110x = 480$$

$$D = RT$$

$$\frac{200x}{200} = \frac{480}{200} \Rightarrow \boxed{2.4 \text{ HRS}}$$