Speed Problems #6

$s = \frac{d}{t}$; $t = \frac{d}{s}$

75 miles @ 15 mph $t = \frac{d}{s} = \frac{75}{15} = 5$ hr.

15 miles @ 20 mph $t = \frac{d}{s} = \frac{15}{20} = 0.75$ hr.

total: 90 miles total: 5.75 hr

$$\text{Speed} = \frac{\text{total distance}}{\text{total time}}$$

~~[999,999 miles @ 1 mph, 1 mile @ 999 mph]~~ ~~av. speed = 500 mph?~~

$$\text{Speed} = \frac{90 \text{ miles}}{5.75 \text{ hrs}} = \boxed{15.7 \text{ mph}}$$