

#2

$$8a + bc = 1120 \quad (\text{money})$$

$$a + c = 170 \quad (\text{quantity})$$

$$\begin{array}{r} 8a + bc = 1120 \\ - \quad 6a + bc = 1020 \\ \hline 2a = 100 \\ \frac{2a}{2} = \frac{100}{2} \\ a = 50 \end{array}$$

$$\begin{array}{r} 50 + c = 170 \\ - 50 \\ \hline c = 120 \end{array}$$

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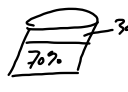
speed x time = distance

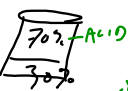
with (b+c)	3	24
against (b-c)	5	24

b = speed of boat
c = speed of current

$$\begin{array}{r} (b+c)3 = 24 \quad \times 5 \\ (b-c)5 = 24 \quad \times 3 \\ \hline 3b + 3c = 24 \quad \times 5 \\ 5b - 5c = 24 \quad \times 3 \\ \hline 15b + 15c = 120 \\ - 15b - 15c = 72 \\ \hline 30c = 48 \\ \frac{30c}{30} = \frac{48}{30} \\ c = 1.6 \text{ km/h} \end{array}$$

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Soln A 

Soln B 

$$\begin{array}{r} A + B = 800 \\ .3A + .7B = 800 \quad (\cdot 54) \\ \hline (0.7) \quad 0.7A + 0.7B = 560 \\ \quad \quad 0.3A + 0.7B = 432 \\ \hline 0.4A = 128 \\ \frac{0.4A}{0.4} = \frac{128}{0.4} \\ A = 320 \end{array}$$

$$\begin{array}{r} A + B = 800 \\ 320 + B = 800 - 320 \\ B = 480 \end{array}$$

Dec 8-2:13 PM