

Plan A

$$.75/\text{min}$$

120 free

Let $x = \#$ minutes

Plan B

$$0.25/\text{min}$$

30 free

$$.75(x-120) = 0.25(x-30)$$

$$.75x - 90 = 0.25x - 7.5$$

$$0.75x - 0.25x = -7.5 + 90$$

$$\frac{0.5x}{0.5} = \frac{82.5}{0.5}$$

$$= 165 \text{ min}$$

Verify

$$\begin{aligned} \text{Plan A.} & \quad \$0.75(165-120) \\ & = 0.75(45) \\ & = \$33.75 \end{aligned}$$

$$\begin{aligned} \text{Plan B} & \quad 0.25(165-30) \\ & \quad 0.25(135) \\ & \quad \$33.75 \end{aligned}$$

$$\textcircled{1} \quad \frac{x}{5} + 7 = 20$$

$$(\text{s}) \quad \frac{x}{5} = 13 \quad (\text{s})$$

$$x = 65$$

(2)

$$\frac{x+2}{3} = \frac{2x-5}{5}$$

$$15 \left(\frac{x+2}{3} \right) = 15 \left(\frac{2x-5}{5} \right)$$

$$5(x+2) = 3(2x-5)$$

$$5x + 10 = 6x - 15$$

$$5x - 6x = -15 - 10$$

$$-x = -25$$

$$x = 25$$

$$\frac{5}{2} + \frac{1}{3} = 6$$

$$\frac{1}{3} - \frac{1}{7} = 21$$

$$\frac{3}{2} - \frac{1}{4} = 4$$

$$\textcircled{3} \quad \frac{8}{h} = 2, \quad h \neq 0$$

$$\cancel{h} \left(\frac{8}{\cancel{h}} \right) = h(2)$$

$$\frac{8}{\cancel{2}} = \frac{2h}{\cancel{2}}$$

$$4 = h$$

Homework

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