

Correct. The information leads to the equation $x(20 - x) = 84$. This becomes $20x - x^2 = 84$ or $0 = x^2 - 20x + 84$. Use the Quadratic Formula:

$$x = \frac{-(-20) \pm \sqrt{(-20)^2 - 4 \cdot 1 \cdot 84}}{2 \cdot 1} = \frac{20 \pm \sqrt{400 - 336}}{2} =$$
$$\frac{20 \pm \sqrt{64}}{2} = \frac{20 \pm 8}{2}$$

So $x = 14$ or 6 . The baker charged \$6 for one cake.