Proportion - Solving Proportions

I.   To solve for x in the following proportion, we **use cross-products.**

$$\frac{2}{8} = \frac{x}{20}$$

$$\frac{2}{8} \bowtie \frac{x}{20}$$

II.   Remember that the cross products of a proportion must be equal, so we have 2 times 20 is equal to 8 times x, as shown below.

$$(2)(20) = (8)(x)$$

III. Simplifying on both sides of the equation, and solving from here, we find that x = 5, as shown below.

$$\frac{40}{8} = \frac{8x}{8}$$

$$\boxed{5 = x}$$