Proportions - Setting them up and Solving

In 17 hours of working Mr. Dellenbach earned $156.74. How long will it take him to earn $750?

To set up a proportion

1. write a ratio you know
2. use your labels
3. make sure you keep your connections because ORDER MATTERS

$$\frac{17 \text{ hrs}}{\$156.74} = \frac{? \text{ hrs}}{\$750}$$

If I went hrs to $ on the first ratio...I go hrs to $ on the second ratio.

To solve a proportion

1. KNOW that cross-products are equal
2. multiply the two numbers that are diagonal from each other
3. then divide this product by the remaining number (the number diagonal from the unknown number)

$$\frac{17 \text{ hrs}}{\$156.74} = \frac{? \text{ hrs}}{\$750}$$

since cross-products are equal...

$$17 \times 750 = 156.74 \times h$$

$$\frac{17 \times 750}{\$156.74} \approx \boxed{81.3 \text{ hours}}$$