Christmas Treeing
2 Problems - Setting up your proportions

Roberto bought a camera for $68 that was on sale at 20% off, what was the original price of the camera?

Hint (make sure the ratios are the same on both sides)

A store owner buys a compact stereo for $300. She wants to price it so she can offer a 20% discount off the posted price and make a profit of 25% of the price she paid. What will the posted price of the stereo be?

1) Using our procedure, our first thought is, "those damn store owners"
2) We then identify what we are looking for, the new price after a 20% discount.
3) The plan is to find the new price to make a 25 percent profit, then use that as 80% of the new price.
4) The math we need to know is the Percent Proportion
5) Here we go

First, $\dfrac{x}{300} = \dfrac{25}{100}$, so x = 75. Has to sell the stereo at $375 to make a 25% profit

Second, to make buyer feel good, store owner wants to sell it at a price when marked down by 20% is $375 or 80%

$\dfrac{375}{y} = \dfrac{80}{100}$, so y = $468.75   The store owner will post the price at $468.75