

1. If the price of a \$100 item is decreased by 40% and then that price is increased by 40%, what is the new price of the item?
2. Herbie was asked to determine the original price of a shirt whose price was \$20 after a 25% discount. Herbie decided to dispense with all of the  $x$  nonsense and just add 25% of \$20 to \$20 to determine the original price. What is the flaw in Herbie's plan? That is, *why* does this approach give Herbie the wrong answer? Help Herbie out and figure out the correct original price. Please include all of the  $x$  nonsense.
3. On average, only 2 out of 11 registered voters in Portland vote in a non-tax related special election. Find the number of ballots you would expect to be cast if this ratio held true for a vote at a time when Portland had 325,000 registered voters.
4. The number of single parents in Clatsop county who block the Disney Channel on their cable television system has increased by 40% since the release of High School Musical 2. A total of 1106 single parents in Clatsop county now block the Disney channel; how many blocked the channel before the release of High School Musical 2?
5. Nickels was having a 25% off sale. What was the sale price of a piece of bling that originally cost \$79.95?
6. Same sale at Nickels; what was the original price of a piece of bling-bling whose sale price was \$79.95?
7. Seven out of every ten Canadian citizens say "aboot" when they mean to say "about." According to Wikipedia, the current population of Canada is 34,291,000. Assuming that figure represents the exact number of Canadian citizens, how many of those citizens are running around saying "aboot?"
8. Joyce showed up for class one day with blue hair. When her friend Marge asked her why she had died her hair blue, Joyce said that she just couldn't pass up the 60% off sale that her salon was having on primary hair coloring. The sale price for Joyce's hair affair was \$26. How much does the salon typically charge for a primary dye job?
9. Carmella likes ice cream. Carmella bought five quarts of the stuff when her local grocer had all ice cream marked off by 30%. The sale price for the five quarts was \$7.70. What was the non-sale price of one quart of the ice cream?
10. Suppose that the price of something increased by 60% but then decreased back to its original price. What was the percentage decrease that brought the price back to its original price?
11. Suppose that something increases in price by 25% and then that price is increased by another 25%. What was the total percentage increase from the original price?
12. The population of Behoovetown, ID increased by 20% to a total population of 11,700. What was the population before the increase?