

Discount, Markup, and Sales Tax

Liberal Arts Mathematics

Assignment Text

Answer the following problems from Section 6.2 of the textbook: 1, 3, 5, 13, 15, 19, 31, 33, and 35.

For reference, the text of the problems are duplicated below.

1. Retail price = \$399.00, percent discount = 30%, find the sale price.
3. Retail price = 125.00, sale price = 90.00, find the percent discount.
5. Sale price = \$145.70, percent discount = 20%, find the retail price.
13. Cost = \$130.00, percent markup = 34%, find the retail price.
15. Cost = 68.45, retail price = 109.90, find the percent markup.

In the following exercises, find the sales tax and total paid.

19. Retail price = \$17.99; sales tax rate = 7.5%

Answer the following.

31. Harris has a coupon for 20% off for any purchase. She finds a new tennis racket for \$278.00. How much is the price after the coupon is applied?
33. Resa purchased a new game for her cousin. After sales tax, she paid 41.13. Find the sales tax rate she paid if the purchase price of the game was 38.99.
35. Doug opens a used auto parts store. He pays \$30 for a car door. How much will he charge if his percent markup is 60%?

Answer Key

- | | |
|--------------|--|
| 1. \$279.30 | 15. 60.6% |
| 3. 18% | 19. Sales tax: \$1.35; Total paid: \$19.34 |
| 5. \$182.13 | 31. \$222.40 |
| 13. \$174.20 | 33. 5.5% |
| | 35. \$48 |

Student Feedback Templates

#1 should be \$279.30 (discount = $\$399 * 0.3 = \119.70 , sale price = $\$399 - \$119.70 = \$279.30$)

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#3 should be 28% (discount = $\$125 - \$90 = \$35$, percent discount = $\$35 / \$125 = 0.28 = 28\%$)

#5 should be \$182.13 (Retail price = P, Sale price = $145.70 = P - 0.2P$, $145.70 = 0.8P$, $145.70 / 0.8 = P$, $182.125 = P$, Round to \$182.13)

#13 should be \$174.20 (Markup = $\$130 * 0.34 = \44.20 , Retail price = $\$130 + \$44.20 = \$174.20$)

#15 should be 60.56% (Markup = $\$109.90 - \$68.45 = \$41.45$, Percent markup = $41.45 / 68.45 = 0.60555... = 60.555...%$, Round to 60.56%)

#19 should be \$1.35 for sales tax ($\$17.99 * 0.075 = \1.34925 , round to \$1.35) and \$19.34 for total paid ($\$17.99 + \$1.35 = \$19.34$)

#31 should be \$222.40 (Discount = $\$278.00 * 0.2 = \55.60 , Sale price = $\$278.00 - \$55.60 = \$222.40$)

#33 should be 5.49% (Sales tax = $\$41.13 - \$38.99 = \$2.14$, Sales tax rate = $2.14 / 38.99 = 0.054885... = 5.4885...%$, Round to 5.49%)

#35 should be \$48 (Markup = $\$30 * 0.6 = \18 , Retail price = $\$30 + 18 = \$48.$)