

Markup & Markdown Problems Worksheet

1. Sasha went shopping and decided to purchase a set of bracelets for 25% off the regular price. The regular price is \$44. If Sasha buys the bracelets today, she will save an additional 5%. Find the sales price of the set of bracelets with both discounts. How much money will Sasha save if she buys the bracelets today

2. A golf store purchases a set of clubs at a wholesale price of \$250. Mr. Edmond learned that the clubs were marked up 200%. Is it possible to have a percent increase greater than 100%? What is the retail price of the clubs?

3. Is a percent increase of a set of golf clubs from \$250 to \$750 the same as a markup rate of 200%? Explain.

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Let B be the sales price with both discounts in dollars.

$B = (0.95)(0.75)(44) = 31.35$. The sales price of the set of bracelets with both discounts is \$31.35. Sasha will save \$12.65.

2. A golf store purchases a set of clubs at a wholesale price of \$250. Mr. Edmond learned that the clubs were marked up 200%. Is it possible to have a percent increase greater than 100%? What is the retail price of the clubs?

Yes, it is possible. Let C represent the retail price of the clubs, in dollars.

$$\begin{aligned}C &= (100\% + 200\%)(250) \\ &= (1 + 2)(250) \\ &= (3)(250) \\ &= 750\end{aligned}$$

The retail price of the clubs is \$750.

3. Is a percent increase of a set of golf clubs from \$250 to \$750 the same as a markup rate of 200%? Explain.

Yes, it is the same. In both cases, the percent increase and markup rate show by how much (in terms of percent) the new price is over the original price.

The whole is \$250 and corresponds to 100%. $\frac{750}{250} = \frac{3}{1} \times 100\% = 300\%$. \$750 is 300% of \$250. $300\% - 100\% = 200\%$.

From Exercise 2, the markup is 200%. So, percent increase is the same as markup.

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