

Price Change Power

Estimate and find prices after one discount or markup.

GRADE 8 • 8.CE.1.a

8.CE.1.a "Estimate and solve contextual problems that require the computation of one discount or markup and the resulting sale price."

NAME _____

DATE _____

FIND THE NEW PRICE

A discount lowers the original price, so find the discount amount and subtract it. A markup raises the original price, so find the markup amount and add it. To estimate, round the final price to the nearest dollar.

WORKED EXAMPLE

A \$84 backpack is discounted 25%.
What is the sale price?

1. Change 25% to 0.25.
2. Find the discount: $84 \times 0.25 = 21$.
3. Subtract the discount: $84 - 21 = 63$.

Answer: The sale price is \$63.

PRACTICE 6 problems

- 1** 1. A \$40 hoodie is discounted 10%.
Estimate the sale price to the nearest dollar,
then find the exact sale price.

ANSWER _____

- 2** 2. A \$60 game pass has a 20% markup.
Estimate the new price to the nearest dollar,
then find the exact price.

ANSWER _____

- 3** 3. A \$48 pair of headphones is discounted 15%. Estimate the sale price to the nearest dollar, then find the exact sale price.

ANSWER _____

- 4** 4. A \$35 sketchbook has a 30% markup.
Estimate the new price to the nearest dollar,
then find the exact price.

ANSWER _____

- 5** 5. A \$90 concert ticket is discounted 15%.
Estimate the sale price to the nearest dollar,
then find the exact sale price.

ANSWER _____

- 6** 6. A \$120 bike light has a 5% markup.
Estimate the new price to the nearest dollar,
then find the exact price.

ANSWER _____

APPLY IT Show your work

- 1** A gaming store sells a controller for \$80. During a weekend sale, the controller is 30% off. Estimate the sale price to the nearest dollar, then find the exact sale price.

WORK SPACE

ANSWER _____

- 2** A student music club buys plain shirts for \$50 each and adds an 18% markup before selling them. Estimate the selling price to the nearest dollar, then find the exact price.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A \$160 pair of wireless earbuds is advertised as 35% off. The sign says the sale price is \$104. Is the sign correct? Explain by finding the discount and the sale price.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	1. A \$40 hoodie is discounted 10%. Estimate the sale price to the nearest dollar, then find the exact sale price.	Estimate: \$36. Exact sale price: \$36.00.
2	2. A \$60 game pass has a 20% markup. Estimate the new price to the nearest dollar, then find the exact price.	Estimate: \$72. Exact price: \$72.00.
3	3. A \$48 pair of headphones is discounted 15%. Estimate the sale price to the nearest dollar, then find the exact sale price.	Estimate: \$41. Exact sale price: \$40.80.
4	4. A \$35 sketchbook has a 30% markup. Estimate the new price to the nearest dollar, then find the exact price.	Estimate: \$46. Exact price: \$45.50.
5	5. A \$90 concert ticket is discounted 15%. Estimate the sale price to the nearest dollar, then find the exact sale price.	Estimate: \$77. Exact sale price: \$76.50.
6	6. A \$120 bike light has a 5% markup. Estimate the new price to the nearest dollar, then find the exact price.	Estimate: \$126. Exact price: \$126.00.

PART 2 • APPLY IT

1. **Estimate: \$56. Exact sale price: \$56.00.** Find 30% of \$80, which is \$24. Subtract \$24 from \$80.
2. **Estimate: \$59. Exact price: \$59.00.** Find 18% of \$50, which is \$9. Add \$9 to \$50.

CHALLENGE

Yes. The discount is \$56, and the sale price is \$104.

Accept equivalent money forms, such as \$36 and \$36.00, for exact prices. Estimates should be the exact final prices rounded to the nearest whole dollar.