

Grade 7 - Percent Problems: Tax, Tips, Discounts and Markups - Quiz

Common Core 7.RP.A.3 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Answer all 10 multiple-choice questions on multistep percent problems: sales tax, tips, discounts, markups, commission, simple interest, percent change, and percent error. Pick the single best answer, then read the explanation to see why it is right and which common mistake each wrong choice shows. A score of 8 or more means you are ready for the test.

Grade 7 · Common Core State Standards: **7.RP.A.3**

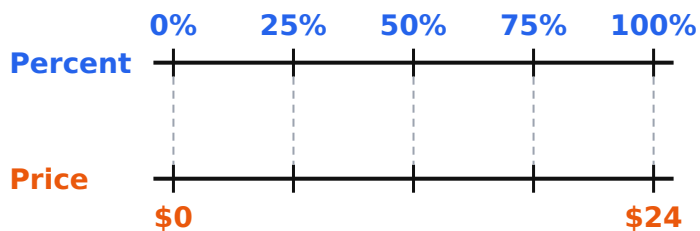
Questions

Question 1

What is 30% of \$85?

- A. \$2.55
- B. \$25.50
- C. \$55.00
- D. \$115.00

Question 2



A shirt costs \$24 and is 25% off. What is the sale price?

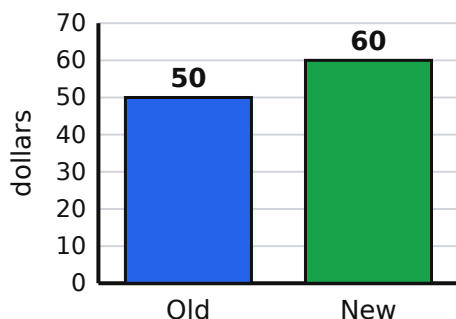
- A. \$6
- B. \$30
- C. \$18
- D. \$23.75

Question 3

Sales tax is 8%. What is the total cost of a \$50 item?

- A. \$4
- B. \$54
- C. \$58
- D. \$50.08

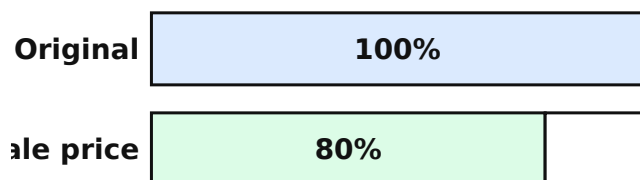
Question 4



A price rises from \$50 to \$60. What is the percent increase?

- A. 10%
- B. 16.7%
- C. 120%
- D. 20%

Question 5



After a 20% discount a coat costs \$64. What was

the original price?

- A. \$76.80
- B. \$51.20
- C. \$84
- D. \$80

Question 6

Simple interest on \$500 at 4% per year for 3 years is:

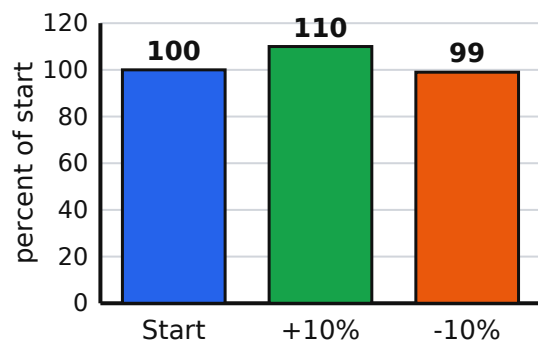
- A. \$60
- B. \$20
- C. \$80
- D. \$560

Question 7

A store buys a toy for \$10 and marks it up 40%. What is the price?

- A. \$14
- B. \$4
- C. \$6
- D. \$50

Question 8



A price goes up 10% and then down 10%. Compared with the start, the final price is:

- A. The same
- B. Higher by 1%
- C. Lower by 1%
- D. Lower by 10%

Question 9

A scale reads 98 pounds, and the true weight is 100 pounds. The percent error is:

- A. 2%
- B. 2.04%
- C. 98%
- D. 102%

Question 10

Jamal earns 6% commission. How much commission does he earn on \$3,500 of sales?

- A. \$21
- B. \$210
- C. \$2,100
- D. \$3,506

Answers

1. **B** - $0.30 \times 85 = 25.50$. Moving the decimal wrongly gives 2.55, and subtracting instead of finding the part gives 55.
2. **C** - The discount is $0.25 \times 24 = 6$, so the price is $24 - 6 = 18$. The answer 6 is only the discount.
3. **B** - Tax is $0.08 \times 50 = 4$, so the total is $50 + 4 = 54$.
4. **D** - The change is 10 and the original is 50, so $10 \div 50 = 20\%$. Dividing by the new price gives 16.7%.
5. **D** - The sale price is 80% of the original, so $64 \div 0.8 = 80$. Adding 20% of 64 is a common error.
6. **A** - $I = 500 \times 0.04 \times 3 = 60$. The value 560 is the total balance, not the interest.
7. **A** - The markup is $0.4 \times 10 = 4$ and the price is $10 + 4 = 14$.
8. **C** - $1.10 \times 0.90 = 0.99$, so the final price is 99% of the start.
9. **A** - The error is 2 and the actual is 100, so $2 \div 100 = 2\%$.
10. **B** - $0.06 \times 3500 = 210$. Moving the decimal two places wrongly gives 21 or 2,100.

Remember

- Percent of a number: change the percent to a decimal and multiply.
- Tax, tips, and markups add; discounts subtract. The base is the original amount.
- Percent change = $\text{change} \div \text{original amount} \times 100\%$.
- Simple interest is $I = prt$; commission is a percent of sales.
- Percent error = $|\text{measured} - \text{actual}| \div \text{actual} \times 100\%$.