

Discount, Tax, and Tip

Name: _____ Date: _____ Score: _____ / 18

Quick Review and Helpful Hints

A discount, tax, or tip is a *percent of the price*. Change the percent to a decimal and multiply by the price to get the amount. For a final price, *subtract* a discount or *add* tax or a tip. A shortcut for a total with tax/tip is to multiply the price by $(1 + \text{rate})$.

▷ **Example:** A \$50 item has 8% sales tax. Find the tax and the total.

Work: Tax is 8% of \$50: $0.08 \times 50 = 4$. The total adds it on: $50 + 4$.

★ **Answer:** tax \$4, total \$54

8% of \$50

= \$4 tax

Multiply the percent by the price.

Practice Problems

Find each amount or final price.

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. 10% tax on \$20 _____</p> <p>2. 25% discount on \$80 _____</p> <p>3. 15% tip on \$40 _____</p> <p>4. 8% tax on \$50 _____</p> <p>5. 20% discount on \$60 _____</p> <p>6. 5% tax on \$200 _____</p> <p>7. 18% tip on \$50 _____</p> | <p>8. 30% discount on \$90 _____</p> <p>9. Final price: \$40 with 10% off _____</p> <p>10. Final price: \$25 with 8% tax _____</p> <p>11. 50% discount on \$48 _____</p> <p>12. 20% tip on \$35 _____</p> <p>13. Final price: \$80 with 25% off _____</p> <p>14. Final price: \$100 with 6% tax _____</p> |
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Word Problems

15. A \$120 jacket is 25% off. What is the sale price? _____
16. A \$60 restaurant meal gets a 20% tip. How much is the tip? _____
17. A \$200 TV has 7% sales tax. What is the total cost? _____
18. A \$45 item is 10% off. What is the final price? _____



Answer Keys

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|------------------------------------------|-------------------------------------------|------------------------------------------|
| 1. <input type="text" value="\$2"/> | 7. <input type="text" value="\$9"/> | 13. <input type="text" value="\$60"/> |
| 2. <input type="text" value="\$20 off"/> | 8. <input type="text" value="\$27 off"/> | 14. <input type="text" value="\$106"/> |
| 3. <input type="text" value="\$6"/> | 9. <input type="text" value="\$36"/> | 15. <input type="text" value="\$90"/> |
| 4. <input type="text" value="\$4"/> | 10. <input type="text" value="\$27"/> | 16. <input type="text" value="\$12"/> |
| 5. <input type="text" value="\$12 off"/> | 11. <input type="text" value="\$24 off"/> | 17. <input type="text" value="\$214"/> |
| 6. <input type="text" value="\$10"/> | 12. <input type="text" value="\$7"/> | 18. <input type="text" value="\$40.50"/> |

Step-by-Step Explanations

1. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Tax is a percent of the price. Change 10% to 0.10 and multiply: $0.10 \times 20 = \$2$. So the final answer is \$2.

2. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change 25% to 0.25 and multiply by the price: $0.25 \times 80 = \$20$ off. So the final answer is \$20 off.

3. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is A tip is a percent of the bill: $0.15 \times 40 = \$6$. So the final answer is \$6.

4. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.08 \times 50 = \$4$. So the final answer is \$4.

5. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.20 \times 60 = \$12$ off. So the final answer is \$12 off.

6. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.05 \times 200 = \$10$. So the final answer is \$10.

7. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.18 \times 50 = \$9$. So the final answer is \$9.

8. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.30 \times 90 = \$27$ off. So the final answer is \$27 off.

9. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is First find the discount: $0.10 \times 40 = \$4$. Subtract it from the price: $40 - 4 = \$36$. So the final answer is \$36.

10. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is First find the tax: $0.08 \times 25 = \$2$. Add it to the price: $25 + 2 = \$27$. So the final answer is \$27.

11. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.50 \times 48 = \$24$ off. So the final answer is \$24 off.

12. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.20 \times 35 = \$7$. So the final answer is \$7.

13. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Discount $0.25 \times 80 = \$20$; subtract: $80 - 20 = \$60$. So the final answer is \$60.

14. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Tax $0.06 \times 100 = \$6$; add: $100 + 6 = \$106$. So the final answer is \$106.

15. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is The discount is $0.25 \times 120 = \$30$. The sale price is $120 - 30 = \$90$. So the final answer is \$90.

16. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is A 20% tip on \$60 is $0.20 \times 60 = \$12$. So the final answer is \$12.

17. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is The tax is $0.07 \times 200 = \$14$. The total is $200 + 14 = \$214$. So the final answer is \$214.

18. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is The discount is $0.10 \times 45 = \$4.50$. The final price is $45 - 4.50 = \$40.50$. So the final answer is \$40.50.



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