

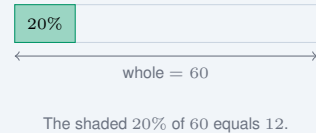
Percent Problems

Name: _____ Date: _____ Score: _____ / 18

Quick Review and Helpful Hints

Percent means “out of 100.” To find a percent of a number, change the percent to a decimal by dividing by 100, then multiply. In a word problem the word “of” signals multiplication and “is” signals equals. So “What is 25% of 80?” becomes 0.25×80 .

▶ **Example:** What is 20% of 60? **Work:** Change 20% to a decimal: $20 \div 100 = 0.20$. Then multiply by 60: $0.20 \times 60 = 12$. ★ **Answer:** 12



Practice Problems

Find each percent of the given number.

- | | | | |
|--------------------|-------|---------------------|-------|
| 1. Find 10% of 90 | _____ | 8. Find 5% of 220 | _____ |
| 2. Find 25% of 80 | _____ | 9. Find 60% of 35 | _____ |
| 3. Find 50% of 46 | _____ | 10. Find 12% of 50 | _____ |
| 4. Find 15% of 200 | _____ | 11. Find 80% of 95 | _____ |
| 5. Find 30% of 70 | _____ | 12. Find 100% of 37 | _____ |
| 6. Find 40% of 150 | _____ | 13. Find 35% of 40 | _____ |
| 7. Find 75% of 48 | _____ | 14. Find 90% of 120 | _____ |

Word Problems

15. A jacket costs \$80. It is on sale for 25% off. How much money is taken off the price? _____
16. A class has 30 students, and 40% of them ride the bus. How many students ride the bus? _____
17. A restaurant bill is \$45. You want to leave a 20% tip. How much is the tip? _____
18. A water tank is 60% full. If it holds 250 gallons when full, how many gallons are in it now? _____



Answer Keys

- | | | |
|------------------------------------|-------------------------------------|--|
| 1. <input type="text" value="9"/> | 7. <input type="text" value="36"/> | 13. <input type="text" value="14"/> |
| 2. <input type="text" value="20"/> | 8. <input type="text" value="11"/> | 14. <input type="text" value="108"/> |
| 3. <input type="text" value="23"/> | 9. <input type="text" value="21"/> | 15. <input type="text" value="\$20"/> |
| 4. <input type="text" value="30"/> | 10. <input type="text" value="6"/> | 16. <input type="text" value="12 students"/> |
| 5. <input type="text" value="21"/> | 11. <input type="text" value="76"/> | 17. <input type="text" value="\$9"/> |
| 6. <input type="text" value="60"/> | 12. <input type="text" value="37"/> | 18. <input type="text" value="150 gallons"/> |

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 Percent means “out of 100,” so 10% becomes the decimal 0.10. Multiply: $0.10 \times 90 = 9$. Quick tip: finding 10% just moves the decimal one place left, so 90 turns into 9. So the final answer is 9.
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 Rewrite 25% as 0.25, then multiply: $0.25 \times 80 = 20$. Since 25% is the same as $\frac{1}{4}$, you could also split 80 into four equal parts. So the final answer is 20.
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 Half of an amount is 50%. Write it as 0.50 and multiply: $0.50 \times 46 = 23$ – exactly 46 shared into two equal halves. So the final answer is 23.
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 Change 15% to 0.15 and multiply: $0.15 \times 200 = 30$. Here’s a check you can do in your head: 10% of 200 is 20, 5% is half of that (10), and $20 + 10 = 30$. So the final answer is 30.
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 Write 30% as 0.30 and multiply: $0.30 \times 70 = 21$. You can also think of it as three groups of 10%: 10% of 70 is 7, and $3 \times 7 = 21$. So the final answer is 21.
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 Turn 40% into 0.40 and multiply: $0.40 \times 150 = 60$. Or picture four tenths: one tenth of 150 is 15, so $4 \times 15 = 60$. So the final answer is 60.
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 Because $75\% = \frac{3}{4}$, use 0.75: $0.75 \times 48 = 36$. You can also take three quarters of 48 directly: $48 \div 4 = 12$, then $3 \times 12 = 36$. So the final answer is 36.
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 Small percents work the same way. Write 5% as 0.05: $0.05 \times 220 = 11$. Remember 5% is half of 10%, and 10% of 220 is 22. So the final answer is 11.
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 Rewrite 60% as 0.60 and multiply: $0.60 \times 35 = 21$. That is six tenths of 35: one tenth is 3.5, so $6 \times 3.5 = 21$. So the final answer is 21.
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 Change 12% to 0.12: $0.12 \times 50 = 6$. A shortcut: 50 is half of 100, so 12% of 50 is just half of 12. So the final answer is 6.
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 Write 80% as 0.80: $0.80 \times 95 = 76$. As a check, subtract the remaining 20% of 95 (19) from 95 to get 76. So the final answer is 76.
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 100% means the whole amount, so $1.00 \times 37 = 37$. The value stays unchanged. So the final answer is 37.
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 Rewrite 35% as 0.35: $0.35 \times 40 = 14$. You can break it up too: 25% of 40 is 10, 10% is 4, and $10 + 4 = 14$. So the final answer is 14.
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 Turn 90% into 0.90: $0.90 \times 120 = 108$. Quick check: 120 minus the missing 10% (12) also gives 108. So the final answer is 108.
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 A discount is a percent of the original price. Find 25% of \$80: $0.25 \times 80 = \$20$, and that \$20 is the amount taken off. So the final answer is \$20.
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 The word “of” tells you to multiply. Find 40% of the 30 students: $0.40 \times 30 = 12$, so 12 students ride the bus. So the final answer is 12 students.
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 A tip is a percent of the bill. Take 20% of \$45: $0.20 \times 45 = \$9$. Since 20% is one fifth, $45 \div 5 = 9$ works too. So the final answer is \$9.
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 “How full” is a percent of the total capacity. Find 60% of 250: $0.60 \times 250 = 150$, so 150 gallons are in the tank. So the final answer is 150 gallons.



Keep Building SAT Math Skills

Recommended Effortless Math resources

SAT Math Full Study Guide



Use the complete SAT Math resource for review, worked examples, extra practice, and test-style questions after each worksheet.



Scan Me
Download Instantly

STUDENT FAVORITE - SAT Math in 10 Days

SAT Math in 10 Days



Step-by-step lessons, topic practice, and full review support for students who want a calm path through SAT Math preparation.

PDF Edition



Scan Me
Download Instantly

A strong companion for self-study, tutoring, homework, and targeted review.

For more SAT Math prep, visit [EffortlessMath.com/SAT](https://www.EffortlessMath.com/SAT)