

Boost Free Lessons - Year 8 Maths

Lesson 11: Percentage of a Quantity

Name: _____ Grade: _____ Date: _____

Worked Example 1

Find 18% of 250 without a calculator.

1. Start with 10%, which you get by dividing by 10: 10% of 250 = 25.
2. Double it for 20%: 20% of 250 = 50.
3. Find 1% by dividing by 100: 1% of 250 = 2.5, so 2% = 5.
4. 18% is 2% less than 20%, so $50 - 5 = 45$.

18% of 250 = 45

Worked Example 2

Find 35% of \$84.

1. Per cent means “out of 100”, so $35\% = \frac{35}{100}$.
2. $35\% \text{ of } 84 = \frac{35}{100} \times 84$.
3. Multiply the tops: $35 \times 84 = 2\,940$.
4. Divide by 100: $2\,940 \div 100 = 29.4$.

35% of \$84 = \$29.40

Remember: 10% is found by dividing by 10, and 1% by dividing by 100. Build any other percentage from those two: 5% is half of 10%, and 18% is 20% minus 2%.



Question 1: Find the following.

1. 10% of 80
2. 25% of 64
3. 50% of 130
4. 20% of 45
5. 5% of 300
6. 75% of 88
7. 15% of 60
8. 40% of 250
9. 1% of 750
10. 60% of 35



Question 2: Find the following.

1. 18% of 150

2. 12% of \$400

3. 35% of 80 kg

4. 8% of 250

5. 65% of 200

6. 2.5% of 600

7. 90% of \$45

8. 125% of 60



Question 3: Answer the following questions.

1. A \$340 jacket is discounted by 25%. Find the discount and the sale price.
2. A restaurant bill of \$86 has a 10% service charge added. What is the total?
3. In a school of 840 students, 45% play a sport. How many students play a sport?
4. A \$1 200 laptop increases in price by 8%. What is the new price?
5. Of 250 concert tickets, 92% were sold. How many tickets were left unsold?





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Answers: Percentage of a Quantity

Question 1

- | | |
|-------|--------|
| 1. 8 | 6. 66 |
| 2. 16 | 7. 9 |
| 3. 65 | 8. 100 |
| 4. 9 | 9. 7.5 |
| 5. 15 | 10. 21 |

Question 2

- | | |
|----------|------------|
| 1. 27 | 5. 130 |
| 2. \$48 | 6. 15 |
| 3. 28 kg | 7. \$40.50 |
| 4. 20 | 8. 75 |

Question 3

1. Discount \$85, sale price \$255
2. \$94.60
3. 378 students
4. \$1 296
5. 20 tickets

