

Boost Free Lessons - Year 7 Maths

Lesson 8: Fractions of a Quantity

Name: _____ Grade: _____ Date: _____

Worked Example 1

Find $\frac{3}{5}$ of 45.

1. The word “of” means multiply, so this is $\frac{3}{5} \times 45$.
2. Write the whole number as a fraction by putting it over 1: $45 = \frac{45}{1}$.
3. Multiply the tops together: $3 \times 45 = 135$.
4. Multiply the bottoms together: $5 \times 1 = 5$.
5. Simplify $\frac{135}{5}$ by dividing: $135 \div 5 = 27$.

$\frac{3}{5}$ of 45 = 27

Worked Example 2

A jacket costs \$80 and is reduced by $\frac{1}{4}$. Find the new price.

1. Find $\frac{1}{4}$ of 80: $80 \div 4 = 20$.
2. That \$20 is the discount, not the new price.
3. Subtract it from the original: $80 - 20 = 60$.
4. You could also find $\frac{3}{4}$ of 80 in one step, since $\frac{3}{4}$ of the price remains.

New price = \$60

Remember: Put the whole number over 1, multiply the tops, multiply the bottoms, then simplify. A quick shortcut is to divide by the bottom number and multiply by the top. Read carefully. Some questions want the part you found, others want what is left over.



Question 1: Find the following.

1. $\frac{1}{2}$ of 36
2. $\frac{1}{3}$ of 27
3. $\frac{2}{5}$ of 40
4. $\frac{3}{4}$ of 32
5. $\frac{5}{6}$ of 54
6. $\frac{2}{3}$ of 81
7. $\frac{3}{8}$ of 64
8. $\frac{4}{9}$ of 72
9. $\frac{7}{10}$ of 150
10. $\frac{5}{12}$ of 96



Question 2: Find the following.

1. $\frac{1}{4}$ of \$60

2. $\frac{2}{3}$ of 90 minutes

3. $\frac{3}{5}$ of 2 m (answer in cm)

4. $\frac{5}{8}$ of \$200

5. $\frac{3}{4}$ of 1 hour (answer in minutes)

6. $\frac{2}{7}$ of 490 g

7. $\frac{4}{5}$ of 3 km (answer in m)

8. $\frac{7}{12}$ of \$144



Question 3: Answer the following questions.

1. A class has 28 students and $\frac{3}{7}$ of them walk to school. How many students walk?
2. A phone costs \$650 and is discounted by $\frac{1}{5}$. What is the new price?
3. Kai has \$120 and spends $\frac{2}{3}$ of it on a game. How much money does he have left?
4. A 750 mL bottle is $\frac{2}{5}$ full. How many millilitres of liquid are in it?
5. In a 60-question exam Nina answered $\frac{5}{6}$ of the questions correctly. How many did she get wrong?





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Answers : Fractions of a Quantity**Question 1**

- | | |
|-------|--------|
| 1. 18 | 6. 54 |
| 2. 9 | 7. 24 |
| 3. 16 | 8. 32 |
| 4. 24 | 9. 105 |
| 5. 45 | 10. 40 |

Question 2

- | | |
|---------------|---------------|
| 1. \$15 | 5. 45 minutes |
| 2. 60 minutes | 6. 140 g |
| 3. 120 cm | 7. 2 400 m |
| 4. \$125 | 8. \$84 |

Question 3

1. 12 students
2. \$520
3. \$40
4. 300 mL
5. 10 questions

