

Session 25: Percentage

Session Title	Percentage
Objectives	By the end of this lesson, students will be able to: <ol style="list-style-type: none">1. Understand the concept of percentage as a part of a whole.2. Convert between fractions, decimals, and percentages.3. Solve real-life problems involving percentages (e.g., discounts, tax, interest).
Topic	<ol style="list-style-type: none">1. Percent to Fraction2. Percent to Decimal3. Decimal to Percent
Materials Required	<ol style="list-style-type: none">1. Work sheets2. Real life examples3. Visual Aids – 100-grid charts4. Pie charts5. Number lines for illustrating percentages.
Methodology	Step-by-Step Demonstration – Clearly model each conversion (percent to fraction, decimal, etc.) and use visual aids.
Session Duration	90 Minutes

Intro activity - (35 minutes)

Begin with a question: "What does 50% off mean during a sale?" (15 minutes)

Explain the concept of percent as “per hundred” using real-life examples (e.g., discounts, grades, statistics).

Symbol: %

Example: 50% means 50 out of 100.

Why We Use Percentages?

- Percentages help us compare things easily.
- They're used in real life like:
- Discounts in shopping (20% off)
- Test scores (You got 80%)
- Battery level (Phone at 30%)
- Interest on money (Bank gives 5%)

Game Name: “Percentage Pop Quiz!”(20 minutes)

Objective: Warm up students with quick, fun percentage questions to activate prior knowledge.

Setup:

Divide the class into two teams.

Use flashcards or a whiteboard.

Each team takes turns answering questions.

One point for each correct answer.

Example Questions:

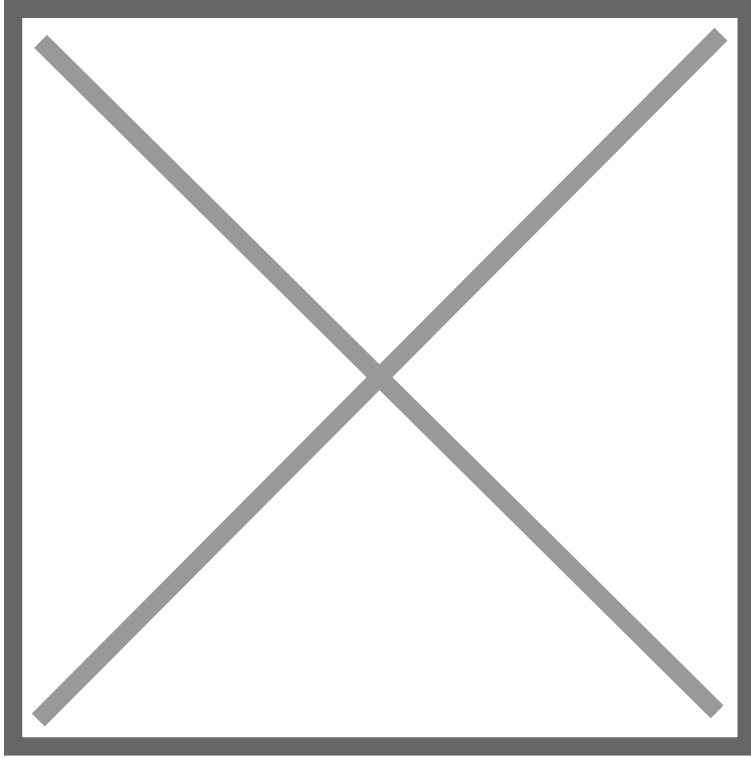
1. What is 50% of 100? (Answer: 50)
2. What percentage is half of something? (Answer: 50%)
3. Convert 0.25 to a percentage. (Answer: 25%)
4. You got 8 out of 10 on a quiz. What's your percentage? (Answer: 80%)
5. What is 25% of 80? (Answer: 20)
6. A pizza is cut into 4 equal slices. If you eat 1 slice, what percentage did you eat? (Answer: 25%)
7. Which is more: 40% or $\frac{3}{10}$? (Answer: 40%)
8. True or False: 100% means the whole thing. (Answer: True)

This is an activity to see what students know.

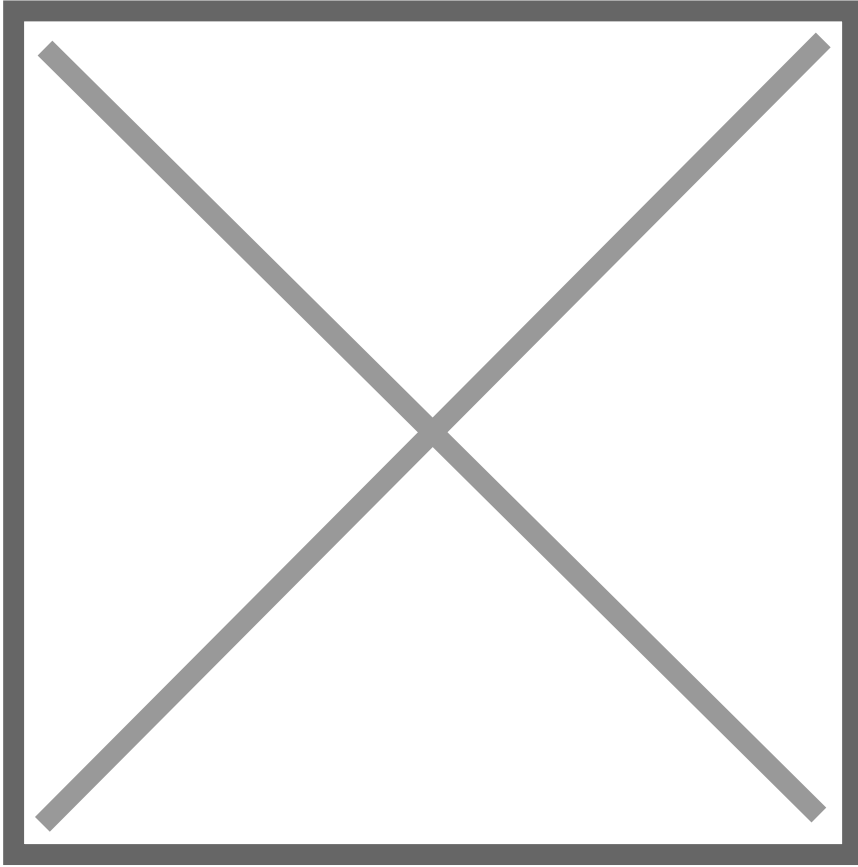
This should be done together after class.

Percentage Problems with Answers (40 minutes)

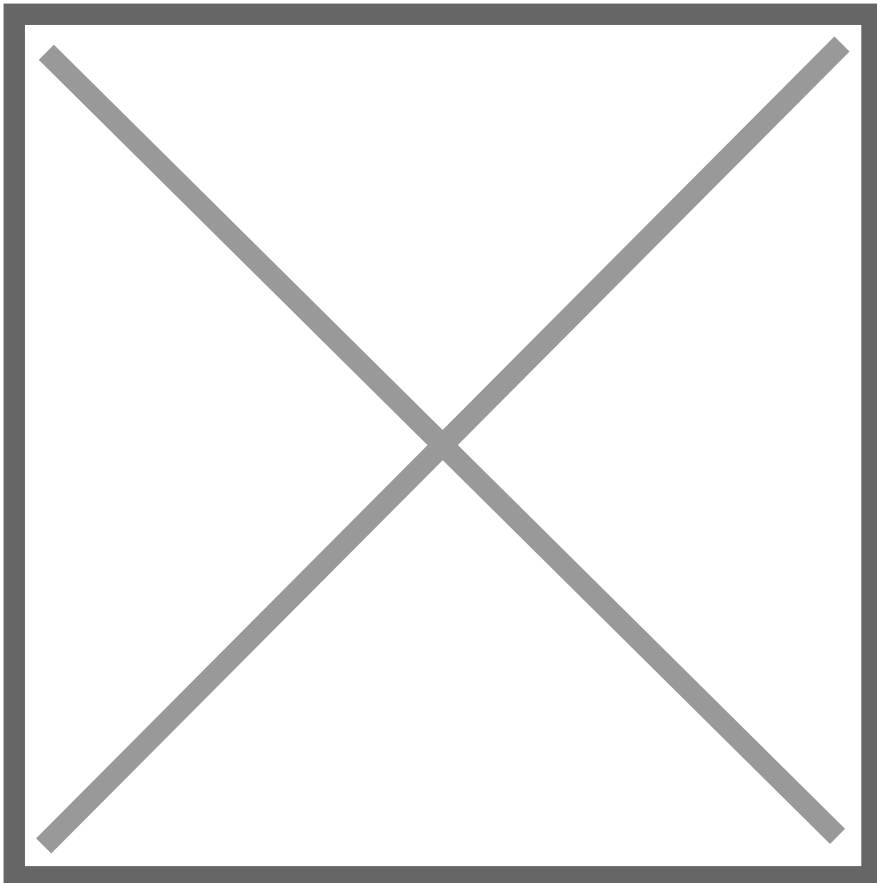
1. Finding a percentage of a number:



2. What is 20% of 150?



3.What is 25% of 200?



1. Ravi scored 72 marks out of 80 in a test. What percentage did he score?

A: $(72/80) \times 100 = 90\%$

2. A shopkeeper gave a 20% discount on a ₹500 bag. What is the discount amount?

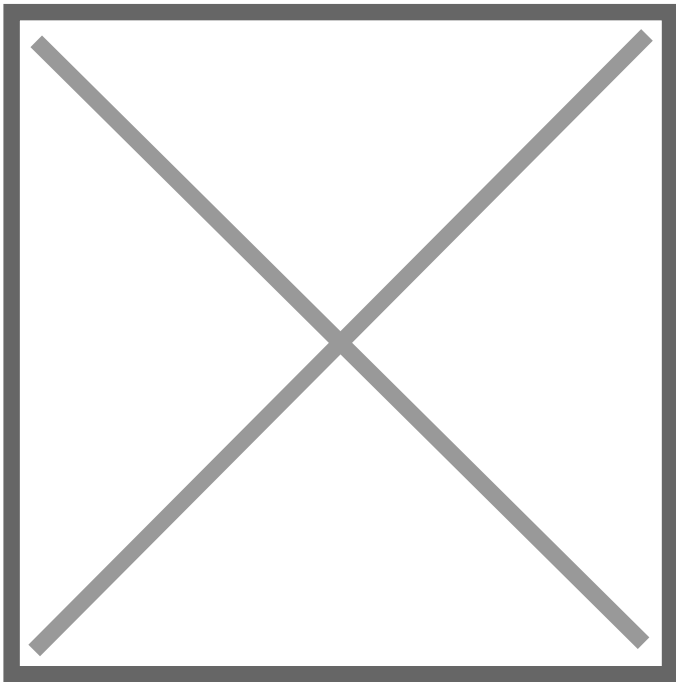
A: 20% of ₹500 = $(20/100) \times 500 = ₹100$

3. A water tank is 75% full. If its total capacity is 200 liters, how much water is in the tank?

A: 75% of 200 = $(75/100) \times 200 = 150$ liters

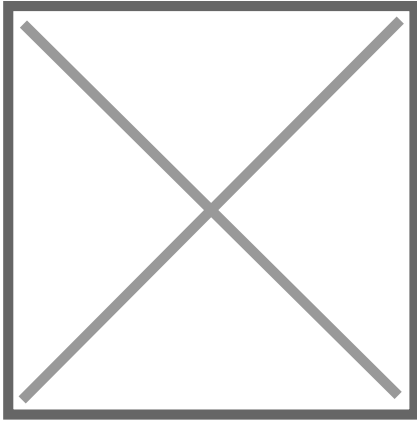
Fraction to Percentage Conversion

Method: Multiply the fraction by 100 and add the percent symbol (%).



Decimal to Percentage Conversion

Method: Multiply the decimal by 100 or move the decimal point two places to the right.



Review Questions (5 minutes)

- What does “percent” mean? Can you explain it with an example?

Follow-Up Task:(10 minutes)

Home Work

1. A T-shirt is priced at ₹800. There is a 25% discount.

(a) Discount amount ? $(25 \div 100) \times 800 = ₹200$

(b) Final price ? $(₹800 - ₹200 = ₹600)$

2. A water bottle has 1.5 L of water. 40% has been used.

(a) Used water ? $(40 \div 100) \times 1.5 = 0.6 \text{ L}$

(b) Left? $(1.5 - 0.6 = 0.9 \text{ L})$

Expected Learning Outcomes:

Knowledge Building

- Understand the concept of percentage
- Enhanced academic vocabulary

Skill Building

- Speed and accuracy
 - Critical thinking
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Revision #9

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