Copilot prompt

- Create a powerpoint presentation explaining fractions. Include percents, mixed fractions, improper fractions. Include examples of comparisons, addition, subtraction, multiplication, and division. Include at least 2 application problems as well.

Slide 1: Title Slide

- **Title:** Understanding Fractions
  Subtitle: A comprehensive guide to fractions, percents, mixed numbers, and more

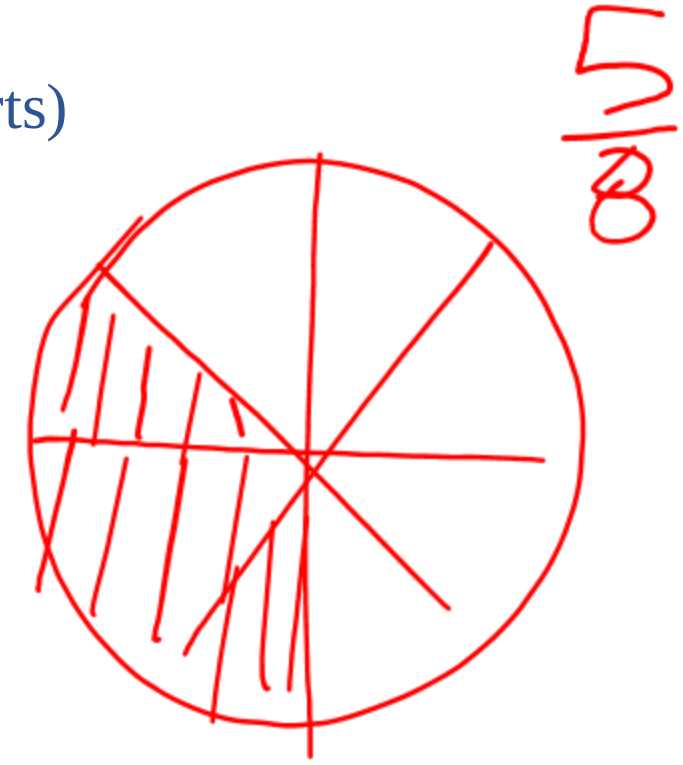
Slide 2: What Are Fractions?

- **Content:**
  - Definition of a fraction
  - Key terms: numerator and denominator
  - Visual example (e.g., a pizza sliced into parts)

$\frac{1}{2}$ → numerator

2 → denominator

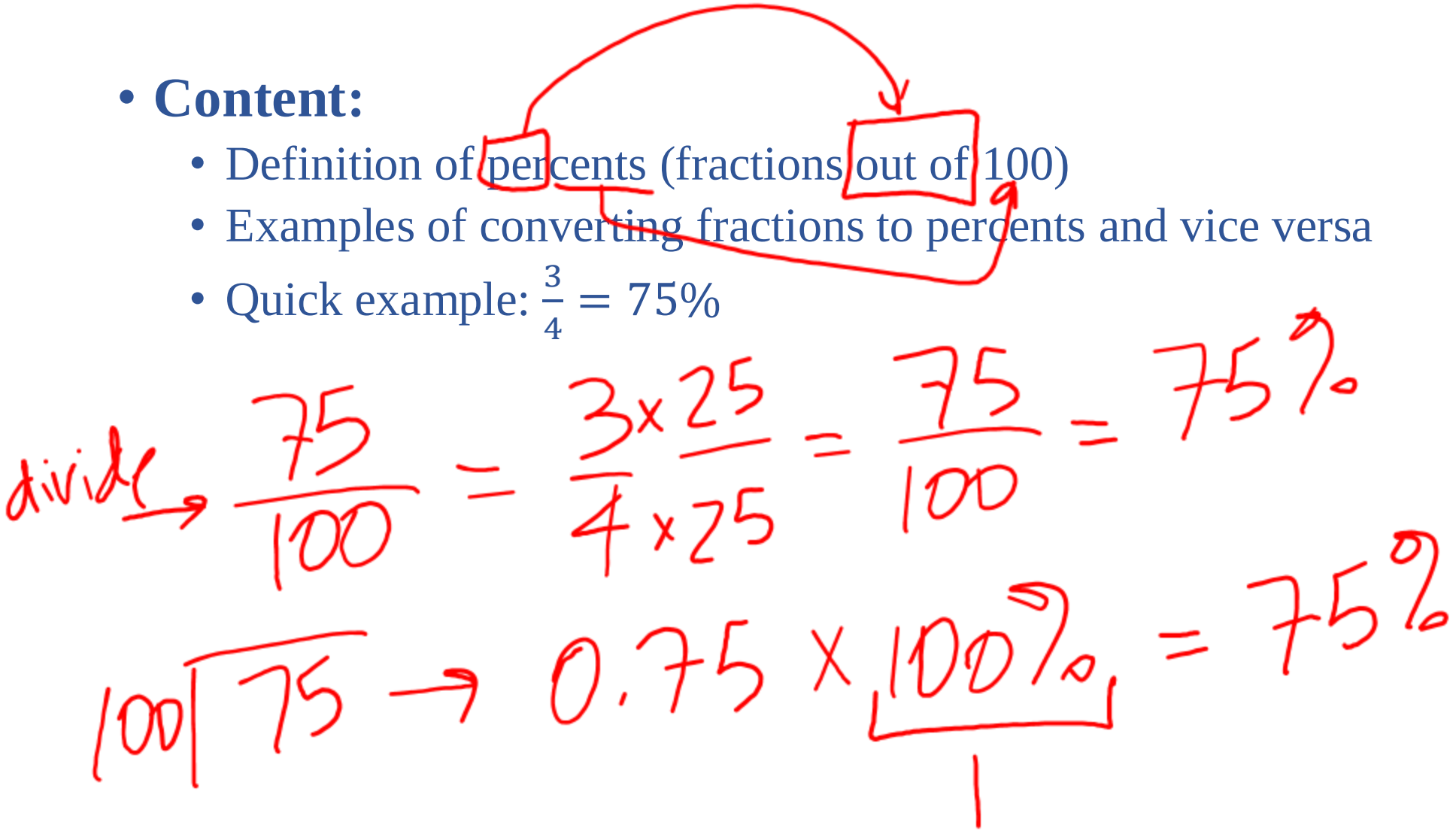
$\frac{3}{8}$



$\frac{5}{8}$

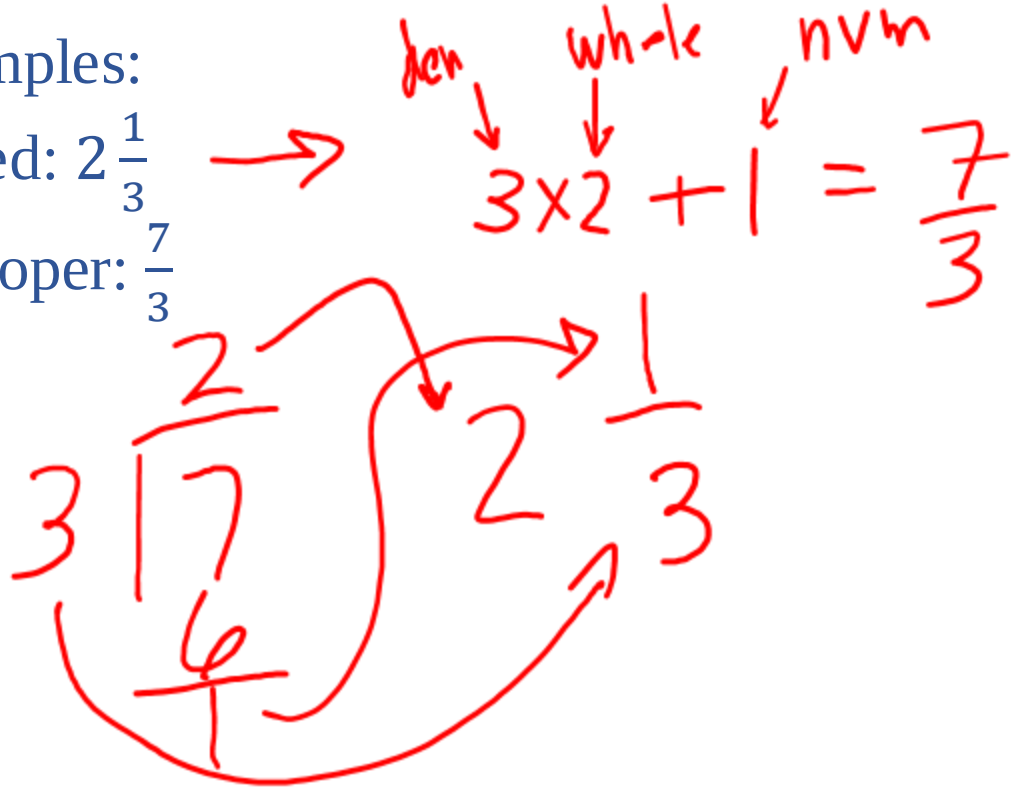
Slide 3: Percents and Fractions

- **Content:**
  - Definition of percents (fractions out of 100)
  - Examples of converting fractions to percents and vice versa
  - Quick example: $\frac{3}{4} = 75\%$



Slide 4: Mixed Fractions and Improper Fractions

- **Content:**
  - Definition of mixed fractions and improper fractions
  - How to convert between the two
  - Examples:
  - Mixed: $2\frac{1}{3}$
  - Improper: $\frac{7}{3}$



Slide 5: Comparing Fractions

- **Content:**
  - How to compare fractions (common denominators or cross-multiplication)
  - Example: Compare $\frac{2}{5} <=> \frac{3}{7}$

same den

$7 \times \frac{2}{7 \times 5} = \frac{14}{35}$ $\frac{3 \times 5}{7 \times 5} = \frac{15}{35}$

Compare num

$\frac{14}{35} < \frac{15}{35}$

Slide 6: Adding Fractions

- **Content:**
  - Steps for addition:
    - *Find a common denominator*
    - *Add numerators*
    - *Simplify the result*
  - Example: $\frac{1}{4} + \frac{3}{8}$

$$\frac{1}{4} \times \frac{2}{2} = \frac{2}{8} \qquad \frac{2}{8} + \frac{3}{8} = \frac{2+3}{8} = \frac{5}{8}$$

Slide 7: Subtracting Fractions

- **Content:**
  - Steps for subtraction (similar to addition)
  - Example: $\frac{5}{6} - \frac{1}{2}$

$$\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$$

$$\frac{5}{6} - \frac{3}{6} = \frac{5-3}{6} = \frac{2}{6} = \frac{1}{3}$$

Slide 8: Multiplying Fractions

- **Content:**
  - Multiplication rule: Multiply numerators and denominators
  - Simplify the fraction
  - Example: $\frac{2}{3} \times \frac{4}{5}$

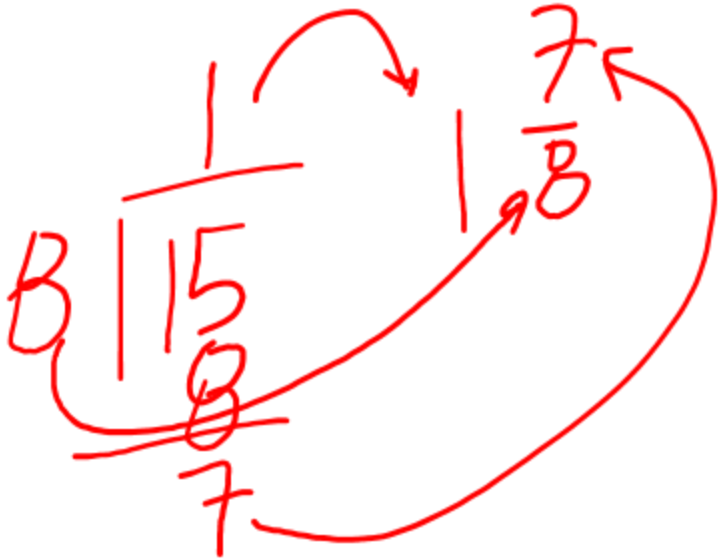
$$\frac{2}{3} \times \frac{4}{5} = \frac{2 \times 4}{3 \times 5} = \frac{8}{15}$$

Slide 9: Dividing Fractions

- **Content:**
  - Division rule: Multiply by the reciprocal
  - Example: $\frac{3}{4} \div \frac{2}{5} = \frac{3}{4} \times \frac{5}{2} = \frac{15}{8}$
  - $\frac{\frac{3}{4} \times \frac{5}{2}}{\frac{2}{5} \times \frac{5}{2}} = \frac{3}{4} \times \frac{5}{2} = \frac{15}{8} \rightarrow 1\frac{7}{8}$

$\frac{2}{5} \rightarrow \frac{5}{2}$ swap

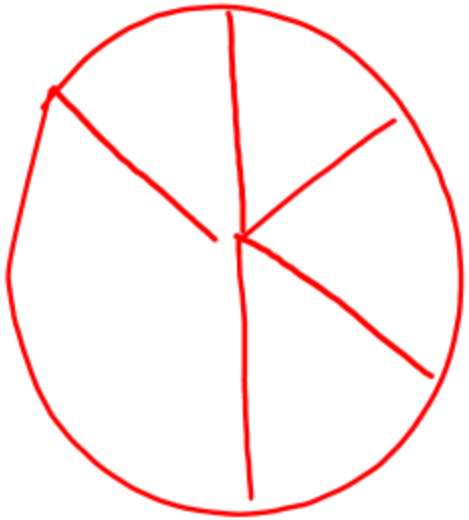
numerator and denominator



Slide 10: Application Problem #1

multiply

- **Problem:** Sarah has $\frac{2}{3}$ of a cake left. She shares $\frac{1}{4}$ of it with her friend. How much cake does Sarah have now?
  Solution: Step-by-step explanation with visual aid



$$1 - \frac{1}{4} = \frac{4}{4} - \frac{1}{4} = \frac{3}{4}$$

$$\frac{3}{4} \times \frac{2}{3} = \frac{3 \times 2}{3 \times 4} = \frac{2}{4} = \frac{1}{2}$$

Slide 11: Application Problem #2

- **Problem:** A recipe calls for $1\frac{1}{2}$ cups of sugar, but you only want to make half the recipe. How much sugar do you need?
  Solution: Step-by-step explanation with visual aid

$1\frac{1}{2} = \frac{3}{2}$

$\frac{2 \times 1 + 1}{2}$

$\frac{3}{2} \times \frac{1}{2} = \frac{3}{4}$ CUP

Slide 12: Conclusion

- **Content:**
  - Recap key points
  - Importance of fractions in daily life
  - Encourage practice with more problems

Examples

- Which is bigger?

1. $\frac{3}{4}$ or $\frac{5}{8}$

2. $\frac{3}{4}$ or 75%

3. $\frac{3}{4}$ or $\frac{5}{8}$

Examples

- Which is bigger?

4. $\frac{12}{32}$ or $\frac{5}{16}$

5. $\frac{35}{7}$ or $\frac{45}{9}$

6. 67.5% or $\frac{5}{7}$

Examples

- Compute

7. $\frac{3}{4}+\frac{5}{8}=$

8. $\frac{3}{23}+\frac{5}{46}=$

9. $\frac{3}{2}-\frac{7}{8}=$

10. $\frac{4}{5}-\frac{5}{7}=$

Examples

- Compute

11. $\frac{73}{100} - \frac{13}{25} =$

12. $\frac{3}{4} \times \frac{5}{8} =$

13. $\frac{5}{11} \times \frac{5}{8} =$

14. $\frac{\frac{3}{4}}{\frac{5}{8}} =$

Examples

- Compute

15. $\frac{4}{9}+\frac{1}{6}=$

16. $\frac{12}{77}+\frac{5}{33}=$

17. $\frac{1}{4}-\frac{3}{16}=$

Examples

- Compute

multiply

$\frac{68}{100} = 0.68$

$.68 \times \$38.50 = \$26.18$

18. $68\%\ of\ \$38.50$

$\rightarrow 0.68$

19. $35\%\ off\ \$120.00 =$

$100 - 35 = 65$

$65\% \text{ of } \$120 = 0.65 \times 120 = \$78$

Examples

- Compute

20. $\frac{13}{16} \times \frac{5}{2} =$

21. $\frac{15}{16} \times \frac{3}{5} =$

22. $\frac{\frac{4}{5}}{\frac{7}{16}} =$