Math 7 Notes

The Percent Proportion

(Section 2-3 in Textbook)

$$\frac{\text{percent}}{100} = \frac{\text{part}}{\text{whole}}$$

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Quick Review of Methods to Solve Proportions

Concept of Equivalent ratios

$\frac{4}{9} \overset{\times 3}{=} \frac{n}{27}$

$n = 12$

Simplify one ratio first - Then use equivalent ratios

$\frac{6}{9} = \frac{n}{30}$

$\frac{2}{3} \overset{\times 10}{=} \frac{n}{30}$

$n = 20$

Use Algebraic Steps

Principle: In a proportion **cross products are equivalent.**

$\frac{n}{23} = \frac{1.5}{16}$

$16n = 1.5(23)$

$16n = 34.5$

$\frac{16n}{16} = \frac{34.5}{16}$

$n = 2.15625$

In this chapter, you are released from showing "steps."

$\frac{n}{27} = \frac{2.5}{100}$

$2.5(27) = 67.5$

$67.5 \div 100 =$

0.675

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What percent (part) of 20 is 25 ?

$$\frac{\text{percent}}{100} = \frac{\text{part}}{\text{whole}}$$

$\frac{n}{100} = \frac{25}{20}$

$n = 125$

125%

13 is what percent (part) of 75 ?

$$\frac{\text{percent}}{100} = \frac{\text{part}}{\text{whole}}$$

$\frac{n}{100} = \frac{13}{75}$

$n = 17.3\%$

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65 is 125% (part) of what number ?

$$\frac{\text{percent}}{100} = \frac{\text{part}}{\text{whole}}$$

$\frac{125}{100} = \frac{65}{n}$

$n = 52$

What number (n) is 1.5% (part) of 40 ?

$$\frac{\text{percent}}{100} = \frac{\text{part}}{\text{whole}}$$

$\frac{1.5}{100} = \frac{n}{40}$

$n = 0.6$

other method

1.5% of 40

$.015(40) = .6$

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