6.1 Basics of Percents

Percent means per one hundred

The % sign is used to show the parts / one hundred parts

Ex 1 Understanding Percents

a) If 43 out of 100 students are men then... 43% men

b) If a person pays a tax of $7 on every $100 spend, then the tax...

7%

Percents as Decimals

% means 10% $\frac{10}{100}$ 0.1

percent fraction decimal

10 → 0.10

Ways to achieve this....

Method 1 # ÷ 100 reduce

Method 2 move decimal LEFT 2 spots (% → Dec)

Ex 2 Writing Percents as Decimals

a) 46% 0.46

b) 28.2 % 0.282

Turning a decimal into a percent

0.358 → 35.8%

$\frac{358}{1000} = \frac{\quad}{100}$

move decimal RIGHT 2 spots

(Dec → %)

could x by 100 too

Ex 3 Write a decimal as a percent

a) 0.529 → 52.9%

b) 1.92 → 192%

Ex 4 Finding 100%, 200%, 300%

a) 100% of 82 people

everything → 82 people

b) 200% of $63 ×2

double → $126

c) 300% of 32 employees ×3

triple → 96 employees

Ex 5 Finding 50%, 10% , 1%

a) 50% of 24 hours ÷2

half $\frac{1}{2}$ → 12 hours

$\frac{28\text{¢}}{10}$

b) 10% of 280 people ÷10

$\frac{10}{100} \to \frac{1}{10}$ → 28 people

$281 \div 10$

$10\overline{)281.0}$ → 28.1, -20, 81, -80, 10

c) 1% of $540 ÷100

$\frac{1}{100}$ → $5.40

6.2 Percents and Fractions

↳ $\frac{\#}{100}$

Ex 1 Write Percents as Fractions (in lowest terms)

a) 25 % $\frac{25}{100}$ then reduce $\frac{1}{4}$

b) 76% $\frac{76}{100} \div 2 = \frac{38}{50} \div 2 = \frac{19}{25}$

Ex 2 Write Decimal or Fractions as Percents as Fractions

a) 15.5% $\frac{15.5}{100} = \frac{155}{1000} = \frac{31}{200}$

b) 33 1/3 % $\frac{33\frac{1}{3}}{100}$ improper $\frac{\frac{100}{3}}{100}$ $\frac{100}{3} \cdot \frac{1}{100} = \frac{1}{3}$ copy dot flip

Ex 3 Writing Fractions as Percents

a) 3/5 $\frac{3}{5} \cdot \frac{20}{20} = \frac{60}{100}$ 60%

b) 7/8 $\frac{7}{8} = \frac{x}{100}$

$\frac{700}{8} = \frac{8x}{8}$

$x = 87.5\%$

$8\overline{)700.0}$ -640 60 -56 40 87.5