

M9

Percentage Discounts

8.3

- A percentage is a special ratio when the whole is represented by a 100 (or 1).
- A percentage can be expressed as a fraction, decimal, or a percentage with %.

Examples: Fill in the table.

Fraction	Percentage with %	Decimal
$\frac{1}{4}$		
	75%	
		0.30

- To find 10% of a number, divide the number by 10 OR move the decimal point by one place value to the **left**.
- To find 10% of a number while using a calculator, multiply the number by 0.1.

Examples: Find 10% of each number.

250	45	13	5	0.8	1378

- To find 5% of a number, divide the number by 10 and then by 2.
- To find 5% of a number while using a calculator, multiply the number by 0.05.

Examples: Find 5% of each number.

100%	150	80	64	5	0.1	125
10%						
5%						

➤ To find 50% of a number, divide the number by 2.

Examples: Find 50% of each number.

100%	150	80	64	5	0.1	125
50%						

Percentage Formula:

$$\frac{\textit{is}}{\textit{of}} = \frac{\%}{100}$$

Examples:

1. What is 61% of 345?

2. What is 3.5% of 1057?

Sale Prices

- Change the percentage into a decimal.
- Multiply the original price by this decimal to find the discount.
- Subtract the discount from the original price to find the sale price.

Examples: Determine the sale price for each scenario.

1. Original price: \$ 52.00; Promotion: 18% off

Discount: _____

Sale price: _____

2. Original price: \$348.00; Promotion: 30% off

Discount: _____

Sale price: _____

2. Original price: \$ 109.50; Promotion: 28% off

Discount: _____

Sale price: _____

