



The National
Orthodox School
Shmaisani

Subject: Mathematics

First Semester

Name: Answer Key

Grade 6 (B, C, D, E, F)

Unit 9: Decimals and percentages

Worksheet (2)

Remember:

- “%” means out of 100 and it's just a fraction with 100 as a denominator.
- To change any decimal number to a percent value:
 $\% = \text{Decimal} \times 100$
- To change any fraction to a percent value, **the denominator** should be **100**.

Exercise (1): Complete the following table.

| Fractions | Decimals | Percentages |
|---|----------|-------------|
| $\frac{14}{100}$ | 0.14 | 14 % |
| $\frac{35}{70} \div 7 = \frac{50}{100}$ | 0.50 | 50 % |
| $\frac{198}{100}$ | 1.98 | 198% |
| $\frac{20}{25} \times 4 = \frac{80}{100}$ | 0.80 | 80 % |
| $\frac{0.45}{100} = \frac{45}{10000}$ | 0.0045 | 0.45% |

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| | | |
|--|----------|-----------|
| $8\frac{42}{60} \div 6$ $8\frac{7}{10} = \frac{870}{100}$ | 8.70 | 870 % |
| $\frac{851}{1000}$ | 0.851 | 85.1 % |
| $\frac{4}{7}$ (long division) | 0.571428 | 57.1428 % |
| $\frac{521}{100}$ | 5.21 | 521% |

Exercise (2): Workout.

a) 40% of 850

$$\frac{40}{100} \times 850 = 340$$

b) 35% of 750

$$\frac{35}{100} \times 750 = 262.5$$

c) 25% of 712

$$\frac{1}{4} \times 712 = 178$$

d) 20% of 36

$$\frac{1}{5} \times 36 = 7.2$$

$$= 7\frac{1}{5}$$

e) 7% of 895

$$\frac{7}{100} \times 895 = 62.65$$

f) 50% of 1254

$$\frac{1}{2} \times 1254 = 627$$

Word problems.

Problem 1:

There are 65 passengers on the bus.

80% of the passengers are sitting and the rest are standing.

a) Write down the percentage of the passengers that are standing.

20%

b) Work out the number of passengers that are sitting.

$$\frac{80}{100} \times 65 = 52$$

Problem 2:

Work out the cost of these sales items.



a) Radio \$150.

$$\frac{15}{100} \times 150 = \$22.5$$

$$\begin{aligned} \text{New price} &= 150 - 22.5 \\ &= \boxed{\$127.5} \end{aligned}$$

b) Air fryer \$250

$$\frac{15}{100} \times 250 = \$37.5$$

$$\begin{aligned} \text{New price} &= 250 - 37.5 \\ &= \boxed{\$212.5} \end{aligned}$$

c) Tablet \$450.

$$\frac{15}{100} \times 450 = \$67.5$$

$$\begin{aligned} \text{New price} &= 450 - 67.5 \\ &= \boxed{\$382.5} \end{aligned}$$

d) Kettle \$50

$$\frac{15}{100} \times 50 = \$7.5$$

$$\begin{aligned} \text{New price} &= 50 - 7.5 \\ &= \boxed{\$42.5} \end{aligned}$$

Problems 3:

Richard earns \$800 a week.

He is given a 5% pay rise.

Work out how much he now earns per week.

5% of his salary

$$\frac{5}{100} \times 800 = \$40$$

$$\text{New salary} = \$800 + \$40 = \boxed{\$840}$$

Problem 4:

Of 80 drivers stopped by police, 20% did not have licenses, 30% had defective lights and 5% failed to observe a stop sign.

Calculate the number of drivers who committed each offence.

Did not have a license

$$\frac{20}{100} \times 80 = \boxed{16 \text{ drivers}}$$

Defective lights

$$\frac{30}{100} \times 80 = \boxed{24 \text{ drivers}}$$

Failed to observe a stop sign

$$\frac{5}{100} \times 80 = \frac{5}{10} \times \frac{8}{1} = \frac{40}{10} = \boxed{4 \text{ drivers}}$$