Lesson 10: $10\% = \frac{10}{100} = \frac{1}{10} = 0.1$ Nov 16, 2022

% are equivalent to fractions and decimals

Converting a % into a Ratio (Fraction) w Denominator of 100.

e.x. a 30% off sale — BLACK FRIDAY

marketing, lies, concise and persuasive language.

$30\% = \frac{30}{100}$

always w respect to a whole

30% of the item's original price off the original price

discount: = original price

Discount price = original price − discount

d.p. = o.p. − % × o.p. → % as are always expressed as a fraction or decimal in calculations!

We use percents by convention, especially in statistics. Using %, is a standardized way of describing things.

e.x. The unemployment rate is 8% in Quebec.

8 per 100, that is, in a group of 100 ppl, 8 people don't have jobs. In a group of 800 ppl, then 16 ppl don't have jobs

Step 1: Convert to fraction by reading! 8 per cent = $\frac{8}{100}$

8% of a whole: $\frac{8}{100} \times \frac{100}{1} = \frac{8 \times 100}{100} = 8$

$\left(\frac{8}{100}\right) \times 200 = 16$

8% of 3000 ppl = 240 ppl don't have jobs

Converting % to $\frac{x}{100}$

Pg 10.4

#1 a. 3%

$\frac{3}{100}$

LESSON 10: EXTENSION QUESTIONS TO THE PRACTICE EXERCISES ON PAGE 10.4

1. Michael receives a 3% commission on the sales that he has made.
   a) What is the definition of commission?

   b) If Michael made a 100$ sale, how much commission did he earn?

$\frac{3}{100} \times \text{whole} \Rightarrow \frac{3}{100} \times \frac{100}{1} = \frac{3 \times 100}{100} = 3$

   c) If Michael made 200$ in sales, how much commission did he earn?

$\left(\frac{3}{100}\right) \times 200 = 6$

   d) If Michael made a 330$ sale, how much commission did he earn?

3% of 330

$3\% \times 330$

$\left(\frac{3}{100}\right) \times 330 = 9.90$

15 % of the bill

2. Lucille gives a 15% tip to the waiter.
a) If Lucille's bill came to a total of 100$, how much money did she tip the waiter?

15 % of 100 ₪

$\frac{15}{100} \times 100$ ₪ $= 15$ ₪

b) If her bill was 10$, how much money did she leave as a tip? How much money did she spend in total at the restaurant?

15 % $\times 10$

$\frac{15}{100} \times \frac{10}{1} = \frac{15 \times 10}{100} = \frac{15}{10} =$

₪ 1.50

Total = bill + tip

= 10 ₪ + 15 % of 10

= 10 + 1.50

Total = 11.50 ₪

c) If her bill was 25$, how much money did she spend in total at the restaurant?

Total = bill + tip

= 25 + 15% of 25

= 25 + $\frac{15}{100}$ × 25

= 28.75 $

d) Lucille's waiter got her order wrong, so he gave her a 10% discount on the cost of her 25$ meal. If in despite of the mistake she still tipped him 15%, how much money did she spend in total at the restaurant?

Total = discount bill + tip on discount bill ✓

discount bill (price) = original bill (price) − 10% of original bill (price)

= (25 − $\frac{10}{100}$ × 25)

= 22.50 $