



Worksheet 4 / Percentages | Lower Secondary Stage (6-8)

1st Semester | 2023-2024

Subject: Math

Chapter: 9

Objectives:

- to review how to calculate percentage increase and decrease.

Question 1: write whether the statements imply a percentage **increase** or **decrease**. Use the words “increase” or “decrease”.

- A sale of 15% on shoes. (decrease)
- A 6% raise on fuel prices. (increase)
- An annual depreciation of a car's value is 5%. (decrease)
- A total bill including 16% tax. (increase)
- A laptop is marked-up up by 25%. (increase)
- A 4% drop in women population. (decrease)

Question 2: To decrease something by 25% the multiplier you should use is 0.75. What multiplier should you use for an:

- An increase of 5%. 1.05 $(100+5 = 105\% = \frac{105}{100} = 1.05)$
- A decrease of 40%. 0.6
- A decrease of 200%. -1
- An increase of 7.5%. 1.075
- An increase of 300%. 4
- A decrease of 13.5%. 0.865



Question 3: Solve the questions below:

a) A new laptop has been marked up ^{increase} since last year by 25%. If the price last year was \$770, what is the cost of it this year?

ANSWER: $\underline{125\% \text{ of } 770} = \frac{125}{100} \times 770 = \962.50

b) There is a 12% sale on lipstick. If the original price is \$9.50, what is the price after sale?

ANSWER: $\underline{88\% \text{ of } 9.50} = \frac{88}{100} \times 9.50 = \8.36

c) My sports cards collection cost me \$342. Now it is worth 4% more. How much is it worth now?

ANSWER: $\underline{104\% \text{ of } 342} = \frac{104}{100} \times 342 = \355.68

d) A few years ago I bought a car costing \$26,480. If I sell it now it will lose 35% of its value. How much will the selling cost be?

ANSWER: $\underline{65\% \text{ of } 26480} = \frac{65}{100} \times 26480 = \17212