

Grade 7 · Percent Increase, Percent Decrease and Percent Error · Test

Common Core 7.RP.A.3 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

This test has 8 questions worth 20 points in total and should take about 45 minutes. Show your work: percent changes, new amounts, original amounts and percent errors are graded on the setup as well as the final answer.

Test information

- **Grade:** Grade 7
- **Chapter:** Percent Increase, Percent Decrease and Percent Error
- **Common Core:** 7.RP.A.3
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 3 pts; Question 5: 3 pts; Question 6: 2 pts; Question 7: 3 pts; Question 8: 3 pts)

Question 1: Classify the change (2 points)

Find each percent change and state whether it is an increase or a decrease.

- From 40 to 52 (1 point)
- From 75 to 60 (1 point)

Question 2: New amounts (2 points)

Calculate the new amount.

- \$120 increased by 15% (1 point)
- 64 pounds decreased by 25% (1 point)

Question 3: Original price (2 points)

A tablet is on sale for \$54 after a 40% discount. Find the original price.

Original price = ?

Sale price \$54	40% off
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Sale price and discount.

Question 4: Percent error (3 points)

Lena measured a countertop as 78.4 inches long. Its actual length is 80 inches.

- Find the error in her measurement. (1 point)
- Find the percent error. (1 point)
- She also measured a 25-inch board as 25.75 inches. Which measurement has the smaller percent error? (1 point)

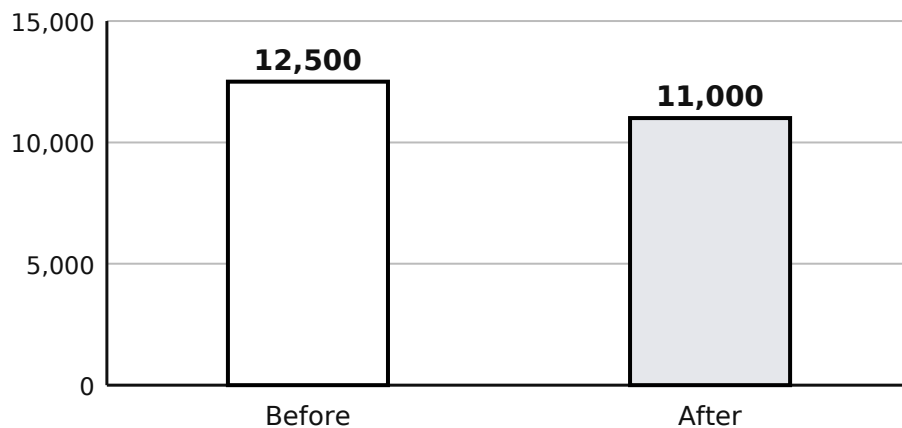
Question 5: Up then down (3 points)

A concert ticket costs \$48. The price increases by 25%. Later the new price decreases by 20%.

- Find the price after the increase. (1 point)
- Find the price after the decrease. (1 point)
- Maya says the two changes combine to a 5% increase. Explain why she is wrong. (1 point)

Question 6: Population (2 points)

The population of a town fell from 12,500 to 11,000. Find the percent decrease.

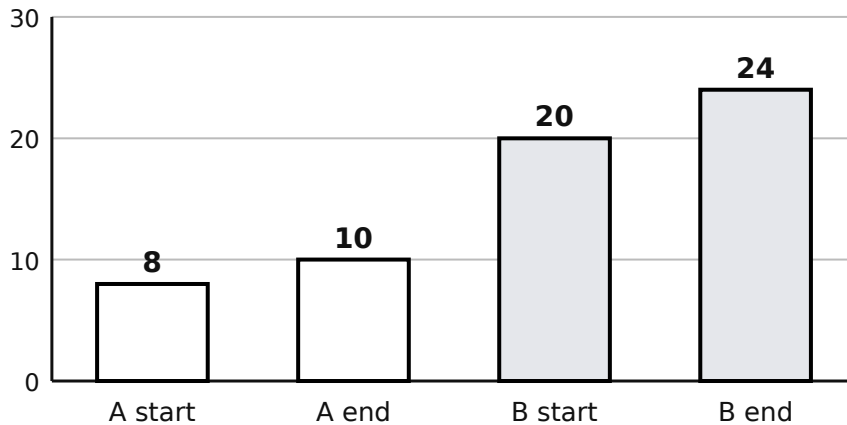


Town population.

Question 7: Compare growth (3 points)

Plant A grew from 8 inches to 10 inches. Plant B grew from 20 inches to 24 inches.

- Find the percent increase in height for each plant. (2 points)
- Which plant grew by the greater percent? (1 point)



Plant heights in inches.

Question 8: Discount and tax (3 points)

Shoes are on sale for \$44 after a 20% discount. Sales tax of 7% is charged on the sale price.

- Find the original price. (1 point)
- Find the total cost including tax. (1 point)
- The total is what percent change from the original price? (1 point)