

Calculating Percent Change and Percent Error

Grade 7 math · Test · Standards: 7.RP.A.3

Name: _____ Date: _____ Class: _____

This test has 8 questions worth 20 points and fits 45 minutes. Show the change, the division and the percent for every question. Round only as the question asks.

Standards: 7.RP.A.3 · **Level:** Grade 7

Time: 45 minutes · 8 questions · Total: 20 points · Calculator: as allowed by your teacher

Question 1 Membership Increase (2 points)

A gym had 175 members last year and has 224 members this year. Find the percent increase.

Question 2 Price Decrease (2 points)

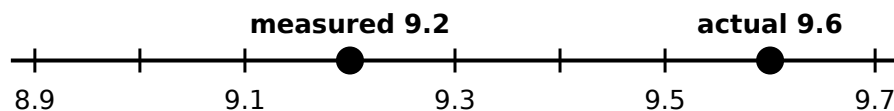
A game console's price dropped from \$64 to \$52.80. Find the percent decrease.

Question 3 New and Original Prices (3 points)

- (a) A \$250 item increases in price by 18%. What is the new price? (1 point)
- (b) After a 15% decrease, another item costs \$127.50. What was its original price? (2 points)

Question 4 Measuring a Pole (3 points)

A student measures a pole as 9.2 feet. Its actual height is 9.6 feet.



Pole height for Question 4.

- Find the error. (1 point)
- Find the percent error to the nearest tenth. (1 point)
- The measurement must be within 5% of the actual height. Is it? (1 point)

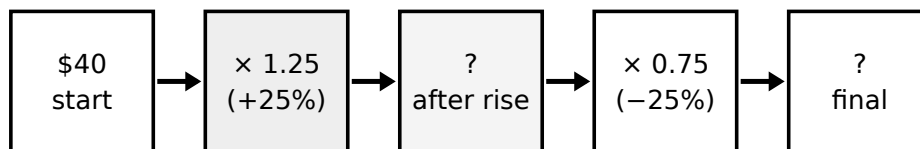
Question 5 Comparing City Growth (3 points)

City X grew from 42,000 to 46,200 residents. City Y grew from 15,000 to 16,800 residents.

- Find each city's percent increase. (2 points)
- Which city grew faster in percent terms? (1 point)

Question 6 Raise Then Cut (3 points)

A shirt costs \$40. The price is raised 25%, and then the new price is marked down 25%.



A 25% rise and then a 25% drop.

- Find the price after the rise. (1 point)
- Find the final price. (1 point)
- Is the final price equal to \$40? Find the overall percent change. (1 point)

Question 7 Flour Amounts (2 points)

A bread recipe is changed from $2\frac{1}{2}$ cups of flour to $3\frac{3}{4}$ cups. Find the percent increase.

Question 8 Museum Visitors (2 points)

Find the percent change in visitors from January to February, and from February to March.

Month	Jan	Feb	Mar
Visitors	3,200	3,840	3,456

Visitors for Question 8.