Calculate a Percentage Increase

A percentage increase compares a change with the value before the change. Percent means per hundred, from Latin per centum; percentage arithmetic developed through trade and record keeping rather than from one identifiable inventor. The original amount is the reference because it is the starting baseline. Dividing the increase by that baseline gives a relative rate, and multiplying by 100 expresses the rate as a percent.

Example

A price rises from $80 to $92. Find the percentage increase.

percentage increase = ((new - original) / original) x 100%

Step-by-step solution

STEP 1

Find the absolute change

Subtract the original price from the new price.

$92 - $80 = $12

STEP 2

Compare with the original

Use $80 as the baseline for the relative change.

$12 / $80 = 0.15

STEP 3

Convert the rate to a percent

Multiply the decimal rate by 100.

0.15 x 100% = 15%

STEP 4

Check by applying the increase

Fifteen percent of $80 is $12; adding it gives $92.

$80 + $12 = $92

ANSWER

The percentage increase is 15%

The increase is $12, and $12 is 15% of the original $80. Do not divide by the new value when calculating percentage increase.

Use this worked example to review the method, then try a similar problem on your own.