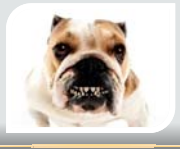
MasterMath

NUMBER SENSE

% of Increase or Decrease



% of Increase or Decrease

Percent of Change = $\frac{\text{Amount of Change}}{\text{Original Amount}}$

Percent of Change = $\frac{|\text{Original Amount} - \text{New Amount}|}{\text{Original Amount}}$

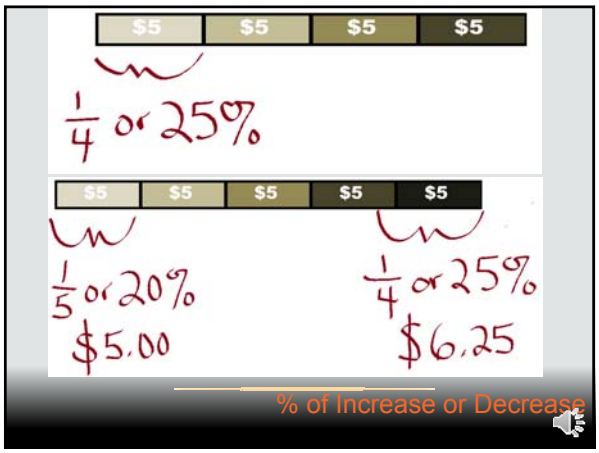
The original price of the sweater was $25, but it's now on sale for $20.

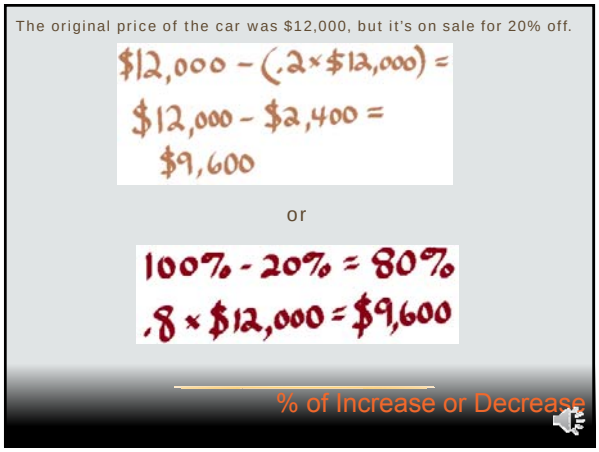
$$\frac{|25-20|}{25} = \frac{5}{25} = .2 = 20\%$$

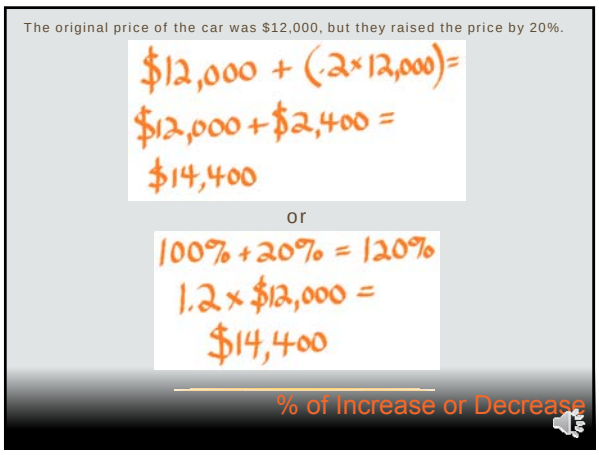
The merchant bought the sweater for $20, and marked it up to $25.

$$\frac{|20-25|}{20} = \frac{5}{20} = .25 = 25\%$$

% of Increase or Decrease


$5 $5 $5 $5
1/4 or 25%
$5 $5 $5 $5 $5
1/5 or 20%
$5.00
1/4 or 25%
$6.25
% of Increase or Decrease


The original price of the car was $12,000, but it's on sale for 20% off.
$12,000 − (.2×$12,000) =
$12,000 − $2,400 =
$9,600
or
100% − 20% = 80%
.8 × $12,000 = $9,600
% of Increase or Decrease


The original price of the car was $12,000, but they raised the price by 20%.
$12,000 + (.2×12,000)=
$12,000 + $2,400 =
$14,400
or
100% + 20% = 120%
1.2 × $12,000 =
$14,400
% of Increase or Decrease

You try it!

Your allowance was $5.00 per week, but was raised to $6.00. What was the % Increase or Decrease?

[redacted]

% of Increase or Decrease

You try it!

Your allowance was $5.00 per week, but was raised to $6.00. What was the % Increase or Decrease?

$$\frac{\text{Amount of Change}}{\text{Original Amount}}$$

$$\frac{(\$6.00 - \$5.00)}{\$5.00}$$

$$= \frac{\$1}{\$5} = .2 = 20\%$$

% of Increase or Decrease

You try it!

The cost of a year at State College was $11,500 last year, but this year it's $10,500. What % Change is this?

% of Increase or Decrease

You try it!

The cost of a year at State College was $11,500 last year, but this year it's $10,500. What % Change is this?

$$\frac{\text{Amount of Change}}{\text{Original Amount}}$$

$$\frac{(11{,}500 - 10{,}500)}{11{,}500} =$$

$$\frac{1000}{11{,}500} = \frac{10}{115} =$$

$.086957 = 8.6957\%$

% of Increase or Decrease

You try it!

The cost of jet fuel is now $5.25 per gallon. A year ago it was 20% less. Two years ago, it was 10% more than last year. How much was jet fuel 2 years ago?

% of Increase or Decrease

You try it!

The cost of jet fuel is now $5.25 per gallon. A year ago it was 20% less. Two years ago, it was 10% more than last year. How much was jet fuel 2 years ago?

Last year: $.8 \times \$5.25 = \$4.20$

2 years ago: $1.1 \times \$4.20 = \$4.62$

% of Increase or Decrease