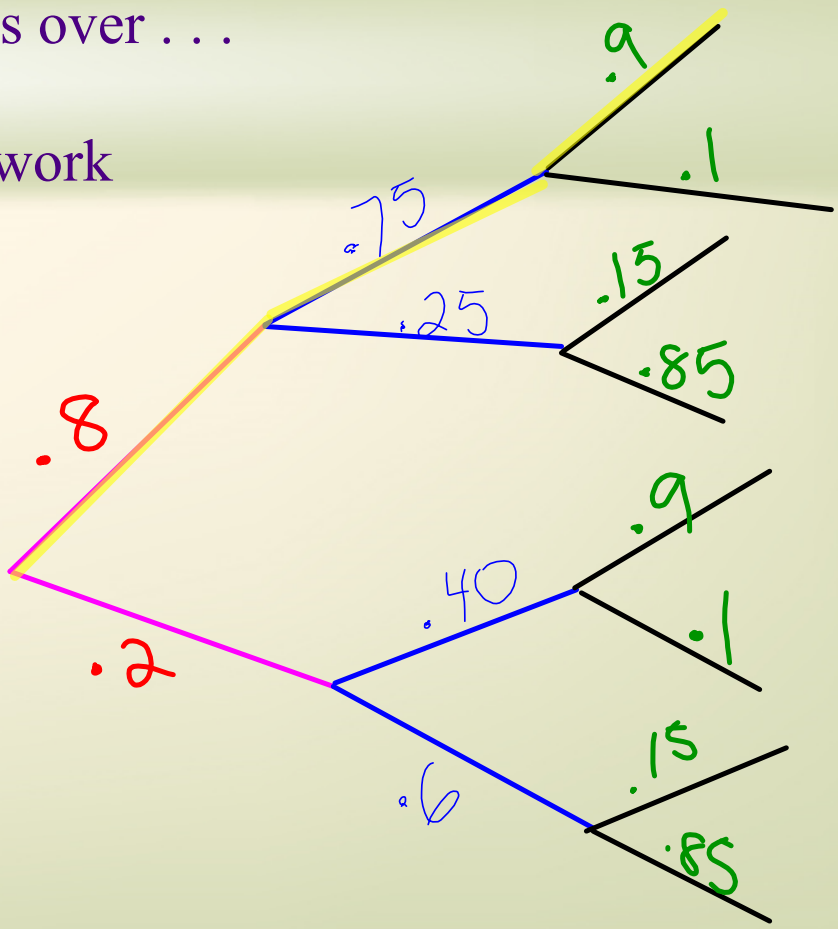
Questions over . . .

- Homework



Section 3.7 Percent of Change

Percent of Change

- ratio
- percent of increase if the value increases
- percent of decrease if the value decreases

$$\text{Percent Increase} = \frac{\text{New Price} - \text{Old Price}}{\text{Old Price}} \times 100$$

$$\text{Percent Decrease} = \frac{\text{Old Price} - \text{New Price}}{\text{Old Price}} \times 100$$

1 EXAMPLE The price of a skirt decreased from $32.95 to $28.95. Find the percent of decrease.

$$\text{percent of decrease} = \frac{\text{amount of change}}{\text{original amount}}$$

$= \frac{32.95 - 28.95}{32.95}$ Subtract to find the amount of change. Substitute the original amount.

$= \frac{4}{32.95}$ Simplify the numerator.

≈ 0.12 or 12% Write as a decimal and then as a percent.

The price of the skirt decreased by about 12%.

2 EXAMPLE Between 1940 and 1980, the federal budget increased from \$9.5 billion to \$725.3 billion. What was the percent of increase in the federal budget?

$$\text{percent of increase} = \frac{\text{amount of change}}{\text{original amount}}$$

$$= \frac{725.3 - 9.5}{9.5} \quad \text{Substitute.}$$

$$= \frac{715.8}{9.5} \quad \text{Simplify the numerator.}$$

$$= 75.35 \text{ or } 7535\% \quad \text{Write as a decimal and then as a percent.}$$

The federal budget increased nearly 7535%.

Joel played 80 consecutive games of soccer without being taken off the field. Then, after a single game on the sidelines, he played another 92 consecutive games. What is the percent of increase in the number of consecutive games he played?

The staff at a company went from 40 to 29 employees. What is the percent decrease in staff?

Homework:

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