W-A1 Algebra 1 Week 21 2/21

What percent of 80 is 54?

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x * 80 = 54

$$\frac{80x}{80} = \frac{54}{80}$$

$x = \frac{54}{80} = 0.675 * 100\%$

67.5%

1.) 96 is what percent of 120?

↓ ↓ ↓ % ↓ ↓

96 = x * 120

$\frac{96}{120} = \frac{120x}{120}$

$x = \frac{96}{120} = 0.80 * 100\%$

80%

2.) 62% of 90 is what number?

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0.62 * 90 = x = 55.8

3.) 48 is 36% of what number

↓ ↓ ↓ ↓ ↓

48 = 0.36 * x

$\frac{48}{0.36} = \frac{0.36x}{0.36}$

$x = 133.\overline{3}$

4.) What number is 14% of 180?

↓ ↓ ↓ ↓

x = 0.14 * 180

$x = 25.2$

Percent Increase and Decrease

Average Salary

1980 ⟶ $21,000

2023 ⟶ $67,000

$$\frac{\text{New} - \text{old}}{\text{old}} * 100\%$$

$$\frac{(2023\ \text{sal}) - (1980\ \text{sal})}{(1980\ \text{sal})} * 100\%$$

$$\frac{67{,}000 - 21{,}000}{21{,}000} * 100\%$$

$$\frac{46{,}000}{21{,}000} * 100\% = 219$$

219% increase

Average price for a House

1980 – $47,000

2023 – $412,000

$$\frac{\text{New} - \text{old}}{\text{old}} * 100\%$$

$$\frac{412{,}000 - 47{,}000}{47{,}000} * 100\%$$

777%

1980 2023

salaries 219%

Homes 777%

	1980	2023
Gas	$1.19	$3.52
Bread	$0.50	$2.99
Minimum wage	$3.10	$7.25
TV	$670	$250
video game	$35	$65
car	$7,500	$48,000
movie ticket	$2.69	$10.53

$\frac{\text{New - old}}{\text{old}} * 100\%$

$\frac{3.52 - 1.19}{1.19} * 100\% = 196\%$

$\frac{2.99 - 0.50}{0.50} * 100\% = 498\%$

$\frac{7.25 - 3.10}{3.10} * 100\% = 130\%$

$\frac{250 - 670}{670} * 100\% = -63\%$ decrease

$\frac{65 - 35}{35} * 100\% = 86\%$

$\frac{48,000 - 7,500}{7,500} * 100\% = 540\%$

$\left(\frac{10.53 - 2.69}{2.69}\right) * 100\% = 291\%$