

3.0 INDEX NUMBERS

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6. MAKES SENSE. DUE TO INFLATION, THE SAME SALARY DOES NOT BUY AS MUCH AS IT USED TO.

7. MAKES SENSE. DUE TO INFLATION 1¢ IN BEN FRANKLIN'S TIME MIGHT BE EQUAL TO \$1 IS TODAY'S MONEY.

11.
$$\frac{\$2.50}{\$0.567} \times 100 \approx \boxed{440.9}$$

13.
$$4.074 \times \$8 \approx \boxed{\$32.59}$$

15.
$$\frac{\$10}{\$1.196/\text{GAL}} \approx 8.36 \text{ GALL TANK}$$

$$\frac{\$10}{\$2.31/\text{GAL}} \approx 4.33 \text{ GAL}$$

$$\frac{4.33}{8.36} \times 100 \approx 51.8\%$$

OR ABOUT $\boxed{\text{HALF}}$

17.
$$\frac{\text{CPI}_{2008}}{\text{CPI}_{1976}} \times \$20,000 = \frac{215.3}{56.9} \times \$20,000 = \boxed{\$75,677}$$

19.
$$\frac{\text{CPI}_{1985}}{\text{CPI}_{1980}} = \frac{107.6}{82.4} \approx 1.3058$$

$$\% \rightarrow \approx \boxed{130.6\%}$$

$$\underline{21.} \quad \frac{\text{CPI}_{2005}}{\text{CPI}_{1976}} \times \$0.25 = \frac{195.3}{56.9} \times \$0.25 \approx \boxed{\$0.86}$$

$$\underline{27.} \quad \frac{\$ \text{PALO ALTO}}{\$ \text{DENVER}} \times \$300,000 = \frac{365}{87} \times \$300,000 \approx \boxed{\$1,258,621}$$

$$\frac{\$ \text{SIOUX CITY}}{\$ \text{DENVER}} \times \$300,000 = \frac{47}{87} \times \$300,000 \approx \boxed{\$162,069}$$

$$\frac{\$ \text{BOSTON}}{\$ \text{DENVER}} \times \$300,000 = \frac{182}{87} \times \$300,000 \approx \boxed{\$627,586}$$

$$\underline{30.} \quad \frac{\$ \text{PROVIDENCE}}{\$ \text{MANHATTAN}} \times \$1,000,000 = \frac{91}{495} \times \$1,000,000 \approx \boxed{\$183,838}$$

$$\frac{\$ \text{SPRINGFIELD}}{\$ \text{MANHATTAN}} \times \$1,000,000 = \frac{78}{495} \times \$1,000,000 \approx \boxed{\$157,576}$$

$$\frac{\$ \text{TULSA}}{\$ \text{MANHATTAN}} \times \$1,000,000 = \frac{52}{495} \times \$1,000,000 \approx \boxed{\$105,051}$$

$$\underline{33.} \quad \frac{25,143 - 14,857}{14,857} \times 100\% \approx \uparrow 69.2\% \quad \text{Total}$$

$$\frac{215.3 - 124.0}{124.0} \times 100\% \approx \uparrow 73.6\% \quad \text{CPI}$$

34.
$$\frac{6585 - 2929}{2929} \times 100\% \approx \uparrow 124.8\%$$

INFLATION $\approx \uparrow 73.6\%$ (FROM # 33)

35.
$$\frac{170,000 - 75,300}{75,300} \times 100\% \approx \uparrow 125.8\%$$

$$\frac{215.3 - 130.7}{130.7} \times 100\% \approx \uparrow 64.7\%$$

37. \$ 2.78

38. \$ 5.77

39. BECAUSE \$4.75 IN 1996 DOLLARS WAS WORTH \$4.75 IN 1996.

40. BECAUSE 1996-DOLLARS ARE WORTH MORE THAN 2009-DOLLARS.