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33) 1960 \$0.5 B % change = $\frac{\text{new-old}}{\text{old}}$
 1977 = \$4.0 B

$$= \frac{-4 - 0.5}{0.5}$$

$$= \frac{-4.5}{0.5}$$

$$= -9 \times 100\%$$

$$= -900\%$$

34) 1972 Communist
 = 1960 Communist + 0.4
 = 0.1 + 0.4 = 0.5 B\$ 6.3 B\$ bigger

1972 World Total = -5.8 B\$

35) W. Germany ↓ 40% 1977 → 1982

1972 -1.4 B\$
 chg. +0.2 B\$
 1977 -1.2 B\$

40% of -1.2 = .4 × -1.2 = -0.48 B\$

~~1982 = -1.2 + 0.48 = -0.72 increase~~
 1982 = -1.2 - 0.48 = -1.68 B\$

36)

1960 World = ?
 ↓ change = -11.7
 1972 World = -5.8

-5.8 + 11.7 = 5.9 = 1960 World

5.9 is 20% less than 1959

OPTION 1

$$\boxed{1959} - 20\% \text{ of } \boxed{1959} = \boxed{1960}$$

$$80\% \text{ of } \boxed{1959} = \boxed{1960}$$

$$.8 \boxed{1959} = 5.9$$

$$\div .8 \qquad \div .8$$

$$\boxed{1959} = 7.375$$

OPTION 2

1960 = 5.9 Billion \$

1959 → 1960 is a 20% decrease,
so try the answers to find -0.2

$\frac{\text{new-old}}{\text{old}}$

a) $\frac{5.9 - 7.080}{7.080} = -0.1667$

b) $\frac{5.9 - 6.431}{6.431} = -0.0826$

c) $\frac{5.9 - 7.375}{7.375} = -0.2$

OPTION 3

looking for 5.9

$x - 20\%(x) = 5.9$

a) $7.080 \times .2 = 1.416$ $7.080 - 1.416 = 5.664$

b) $6.431 \times .2 = 1.2862$ $6.431 - 1.2862 = 5.1448$

c) $7.375 \times .2 = 1.475$ $7.375 - 1.475 = 5.9$

NOTE

1959 → 1960

20% decrease

~~20% increase~~

Not the same