

**Session 4-5 Theory of Risk and Return Exercise:**

21. Suppose you purchase one share of the stock of Volatile Engineering Corporation at the beginning of year 1 for \$36. At the end of year 1, you receive a \$2 dividend, and buy one more share for \$30. At the end of year 2, you receive total dividends of \$4 (i.e., \$2 for each share), and sell the shares for \$36.45 each. The dollar-weighted return on your investment is \_\_\_\_\_.

**Question 21:**

Year	Cash Out	Cash In	Net In (Out)
0	-36.00		-36.00
1	-30.00	2.00	-28.00
2		76.90	76.90
Dollar-weighted return or IRR =>			<b>12.35%</b>

22. Suppose you purchase one share of the stock of Cereal Correlation Company at the beginning of year 1 for \$50. At the end of year 1, you receive a \$1 dividend, and buy one more share for \$72. At the end of year 2, you receive total dividends of \$2 (i.e., \$1 for each share), and sell the shares for \$67.20 each. The time-weighted return on your investment is \_\_\_\_\_.

23. Suppose you purchase one share of the stock of Cereal Correlation Company at the beginning of year 1 for \$50. At the end of year 1, you receive a \$1 dividend, and buy one more share for \$72. At the end of year 2, you receive total dividends of \$2 (i.e., \$1 for each share), and sell the shares for \$67.20 each. The dollar-weighted return on your investment is \_\_\_\_\_.

**Question 22-23:**

Year	Cash Out	Cash In	Net In (Out)	Ri
0	-50.00		-50.00	
1	-72.00	1.00	-71.00	46.00% = (P1 + D - P0)/P0
2		136.40	136.40	-5.28% = (P2 + D - P1)/P1
Dollar-weighted return or IRR =>			<b>8.78%</b>	

Time-weighted return =>

$$= (1 + 46\%) * (1 - 5.28\%) - 1$$

**17.60%**