

1:25 Quiz: 2/15/12

Name \_\_\_\_\_

**Quiz:** Given the following information on Exxon Mobil, set up the calculations (equations and all relevant numbers) that you would need to determine the rate of return per year (annualized return) on Exxon Mobil between 12/31/2010 and 5/11/2011 assuming you did not reinvest any dividends and assuming that you did. Be sure to identify which is which.

Date	Dividend	Price	Day
12/31/2010	0.00	73.72	0
2/8/2011	0.44	82.98	39
5/11/2011	0.47	81.12	131
8/10/2011	0.47	67.26	222
11/8/2011	0.47	79.76	312
12/31/2011	0.00	84.76	365

Note: You don't have to solve anything, just set everything up.

Reinvest dividends:

+3 (10)

$$r_{2/8} = \frac{.44}{73.72} + \frac{82.98 - 73.72}{73.72}$$

+3 (10)

$$r_{5/11} = \frac{.47}{82.98} + \frac{81.12 - 82.98}{82.98}$$

+5 (5)

$$r^{(131/365)} = (1 + r_{2/8})(1 + r_{5/11}) - 1$$

+1 (1)

$$r(1) = \left(1 + r^{(131/365)}\right)^{365/131} - 1$$

Don't reinvest:

(9) (11)

+2 +2 +2 +2

$$NPV = -73.72 + \frac{.44}{(1+r)^{39/365}} + \frac{.47+81.12}{(1+r)^{131/365}} = 0 \Rightarrow \text{solve for } r$$

+3 +3

Note: Bonus WSJ Questions on back of page

+4 +4