

EXAM FM QUESTIONS OF THE WEEK

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Week of September 11/06

A fund begins at the start of the year with a deposit of \$1000.

A deposit of \$200 is made at time t during the year, $0 < t < 1$.

The fund value is \$1200 just before the deposit at time t and it is \$1500 at the end of the year.

The time-weighted and dollar-weighted returns are the same for the year.

Find the time in the year at which the deposit is made.

The solution can be found below.

Week of September 11/06 - Solution

Time-weighted return is j , where $\frac{1200}{1000} \times \frac{1500}{1200+200} = 1 + j \rightarrow j = .285714$.

Dollar-weighted return i satisfies the relationship

$$1000(1 + i) + 200[1 + (1 - t)i] = 1500.$$

Since $i = j = .285714$, solving for t results in $t = .75$