

Review Questions... p. 503

3. Hugh has created the following investment portfolio:

A • At the end of each year, for the past 10 years, he has purchased a \$1000 CSB, with an average annual interest rate of 3.4%, compounded annually.

```
N=10
I% = 3.4
PV = 0
PMT = 1000
FV = 11677.32033
P/Y = 1
C/Y = 1
PMT: [ ] BEGIN
```

F • He has a trust account that was set up when he was born, 42 years ago, with a single deposit of \$3000. The trust fund earns an average annual interest rate of 4.3%, compounded quarterly.

```
3000(1+0.043/4)^(4*42)
= 18083.0322
```

F • He has a \$10 000 GIC, with a 10-year term, that he purchased 10 years ago and earned 3.95%, compounded semi-annually.

```
10000(1+0.0395/2)^20
= 14786.80276
```

F Hugh intends to redeem everything and then invest all the money in a 5-year bond that earns 5.1%, compounded annually. How much will Hugh's bond be worth in 5 years?

+
\$44547.15

$$A = 44547.15 \left(1 + \frac{0.051}{1}\right)^5$$

$$= 57125.96$$

Foundations of Math 11 - Investing Money Formulas

Simple Interest

$$\begin{array}{ll} I = Prt & A = P + Prt \\ A = P + I & A = P(1 + rt) \end{array}$$

Compound Interest

$$A = P \left(1 + \frac{r}{n} \right)^{nt} \quad I = A - P$$

Rule of 72

$$\text{doubling time} = \frac{72}{\text{rate}}$$

Rate of Return

$$ROR = \frac{\text{earn}}{\text{invested}} \times 100\%$$

Present Value

$$P = \frac{A}{\left(1 + \frac{r}{n} \right)^{nt}}$$

Regular Payments (TVM-Solver)

$$\begin{array}{l} N = \\ I\% = \\ PV = \\ PMT = \\ FV = \\ P/Y = \\ C/Y = \\ PMT: END BEGIN \end{array}$$