

10-5B Investment Diversification

To do now:

- 1. Write down the objective**
- 2. Take out earbuds**

You will need:

- **Student Notes**
- **Textbook**
- **Calculator**
- **Notebook Paper**
- **Pen or Pencil**

Items in red are needed for the lecture.

OBJECTIVE

Calculate real estate and life insurance returns

Do investments
always make
money?



How do you
calculate that
gain or loss?

Example 5

- Today, Jennifer and Kevin bought a real estate property for \$350,000.
 - Based on research they have done, they expect the value will increase this year by 8%.
 - One year later, a sewage plant opened up one block away and the property value actually fell by 40%.
- a. Compute the expected gain/loss on their real estate investment.

$$\begin{aligned}\text{Gain/Loss} &= \text{Investment} \times \% \text{ change (converted)} \\ &= 350,000 \times .08 \\ &= \mathbf{\$28,000.00}\end{aligned}$$

- b. Compute the actual gain/loss on their real estate investment.

$$\begin{aligned}\text{Gain/Loss} &= \text{Investment} \times \% \text{ change (converted)} \\ &= 350,000 \times -.40 \\ &= \mathbf{\$ -140,000.00}\end{aligned}$$

Is life insurance
a good deal?



Example 6

- Rob pays \$98 per month for a \$100,000 life insurance policy.
- Rob had the policy for 29 years before he died.
- His beneficiaries received \$100,000.

Compare this to investing \$98 per month for 29 years at 4.6% interest compounded monthly.

B = future value B

P = periodic amount \$98

r = rate (converted) .046

n = number of compounds 12

t = years 29

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

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t = years 29

$$B = \frac{98 \left(\left(1 + \frac{.046}{12} \right)^{12 \cdot 29} - 1 \right)}{\frac{.046}{12}}$$

\$71,238.21

What do I do now?

The 10-5B Assignment

When is it due?

Next Class