In the following practice questions, Mr. Smith has bolded the sentences that help you find the future value, and the compounding periods per year. Moving forward, you will need to pick off this information yourself.

1**. What is the future value** of a $4500 investment after 8 years if interest is paid at 3.5% per year, c**ompounded monthly**?

1

0

(years)

1

0

(years)

**2.** Garret borrows $3000 at 4.4% per year, **compounded monthly**. **How much does he need to repay** at the end of 3 years?

1

2 (semi-annually is twice a year)

0

(years)

**3.** If Laura invests $10 000 at 3.3% per year, compounded **semi-annually**, **after many years** would her investment grow to $18 000?

1

2 (semi-annually is twice a year)

0

(years)

**4.** Bort needs to have $11,500 saved up in 6 years. If he gets a rate of 8% per year, compounded semi-annually, **how much does he have to invest right now**?

**5.** Trevor invests $3000 in a term deposit that pays 6.6% per year, compounded semi-annually. **How long will it take** for his investment to triple in value?

1

2 (semi-annually is twice a year)

0

(years)

1

0

(years)

**6. What annual interest rate**, **compounded monthly**, would be needed for a $1600 investment to grow to $2150 after 6 years?

Answers

**1.** $5951.66

**2.** $3422.50

**3.** 18 years

**4.** $7182.87

**5.** 17 years

**6.** 4.93% per year