

2. Renata : \$15,000 at 6%
Compounded ^{monthly} for 3.5 years

$$A = P(1+i)^n$$

$$A = 15,000(1+0.005)^{42}$$

$$A = 15,000(1.233)$$

$$A = \$18,495.49$$

$$\begin{array}{r} 18,495.49 \\ - 15,000 \\ \hline 3,495.49 \end{array}$$

$$i = \frac{0.06}{12}$$

$$n = 3 \times 12$$

$$n = 36 + 6$$

$$n = 42$$

3. Jonathan borrows \$9000 at 4% annually, compounded SEMI-annually for 2 years. How much does he need to repay?
 a) How much does he need to repay?
 b) How much interest?

$$A = P(1+i)^n$$

$$\frac{0.04}{2}$$

$$A = 9000(1+0.02)^4$$

$$n = 2 \times 2 = 4$$

$$A = 9000(1.082)$$

$$A = \$9738.00 \quad \$9741.89$$

$$\text{Interest: } \$741.89$$

4a) \$ 6258.25

b) \$ 6295.42

c) \$ 6314.81

d) \$ 6328.06

e) \$ 6333.23

6a) \$ 151.08

b) 25 879.10

7. a) \$ 146.41

b) \$ 204.91

b)

$$A = 950(1 + 0.025)^{\frac{10 \times 4}{4}}$$

$$A = 950(1.025)^{40}$$

$$A = 2550.81$$

$$= 0.025$$

$$A = 950(1.025)^{36}$$

$$A = 2310.91$$

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Interest in year 10 : 239.90