

Instructions: Show all work. Use exact answers unless specifically asked to round. Be sure to complete all parts of each problem.

1. Find the monthly payment on a loan of \$30,000 at 11.5% interest for three years.

2. Find the total interest paid on the loan.

$$I = Prt$$

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

$$\text{payoff} = (k + 1)R - u$$

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

$$V = \frac{(1-t)R[(1+r)^n - 1]}{r}$$

$$r_{eff} = \left(1 + \frac{r}{n}\right)^n - 1$$

$$A = Pe^{rt}$$

$$u = \frac{k(k+1)}{n(n+1)} F$$

$$NAV = \frac{A-L}{N}$$

$$V = \frac{R[(1+r(1-t))^n - 1]}{r}$$

$$A = P(1 + rt)$$

$$u = kR \left(\frac{h}{100+h}\right)$$

$$h = \frac{nt \left(\frac{r}{n}\right) 100}{1 - \left(1 + \frac{r}{n}\right)^{-nt}} - 100$$

$$V = R \left[\frac{(1+r)^n - (1+i)^n}{r-i} \right]$$