Math 1215 Hw 14 **Name** Ans. key

1.Wayne earns 4.7% simple interest for 5 years on $4500. How much interest does he earn?

$$I = Prt$$
$$I = 4500(.047)(5)$$
$$I = \$1057.50$$

2. Tong loaned Jody $70 for a month. He charged 5% simple interest for the month. How much did Jody have to pay Tong?

$$A = P + I$$
$$A = 70 + .05(70)$$
$$A = 70 + 3.50$$
$$A = \$73.50$$

3.Michelle plans to invest $1000 into a savings account which has a 12% annual interest rate compounded monthly (12 times a year), how much money would there be in 10 years?

$$A = P\left(1+\frac{r}{n}\right)^{nt}$$
$$A = 1000\left(1+\frac{0.12}{12}\right)^{12(10)}$$
$$A = 1000(1.01)^{120}$$
$$A \approx \$3300.39$$

4.Determine the amount of an investment if $500 is invested at an interest rate of 5% compounded Continuously for 25 years.

$$A = Pe^{rt}$$
$$A = 500e^{.05(25)}$$
$$A = 500e^{1.25}$$
$$A \approx \$1745.17$$