HW 71: WS Continuous Compounding Interest

$$A = Pe^{rt}$$

1. Evaluate $8,000 is invested in a money market account that earns 3.5 % annual interest when the interest is compounded continuously.

Number of years invested	Compounded Monthly @ 3.5% annual rate	Compounded Continuously @3.5% annual rate
10 years	$11,346.76	
20 years	$16,093.62	
25 years	$19,166.58	

2. Cayley and Mobius are saving up for a trip.
Cayley deposited $750 in a savings account earning 5.5% compounded continuously for 3 years. Mobius deposited $900 in his own savings that earns 5.75% compounded continuously but for only 2.5years. Who has more money by the time they are ready to take their trip?

3. How much should you invest in a retirement account that earns 4.8% compounded continuously to have $65,000 in 12 years?