$\qquad$

## Read directions carefully! Show all work for full credit!

1. ( 13 pts ) How much should you invest for 4 years at $6.37 \%$ interest compounded continuously to end up with $\$ 15,000$ ?
2. ( 12 pts) Alissa's investment worth $\$ 13,000$ in 2010 was worth $\$ 7,500$ in 2020. Find
a. The total return on the investment.
b. The annual return on the investment.

## PAGE 2

3. ( 10 pts ) What is the APY corresponding to an APR of $7.18 \%$ compounded monthly?
4. ( 15 pts ) How long does it take to (at least) double your money at $12 \%$ compounded quarterly? (Don't forget to round up correctly.)

## PAGE 3

5. ( 15 pts ) Carly saves $\$ 525$ a quarter for 11 years at $4.5 \%$ compounded quarterly. How much does she end up with?

How much of that (in money) is interest?
6. (10 pts) How much should Dan deposit monthly at $4.5 \%$ to end up with $\$ 50,000$ in 10 years?

## PAGE 4

7. (10 pts) Ellie can afford monthly payments of $\$ 130$ for a 4 -year car loan. How much can she afford to borrow, assuming an APR of $4.5 \%$ compounded monthly?
8. ( 15 pts ) Frank runs up a $\$ 900$ credit card bill in one day. The APR is $20 \%$ and his aim is to pay off the debt in 3 years. What are his monthly repayments? What are his total payments?
