

NAME: _____

P.I. A2.A.6: Solve an application which results in an exponential function

1. Find the amount accumulated on \$500 invested at 8.5% for 3 years compounded semi-annually.

[A] \$815.73 [B] \$638.64 [C] \$641.84 [D] \$12,750

2. Find the amount accumulated on \$900 invested at 6.5% for 4 years compounded quarterly.

[A] \$23,400 [B] \$1157.82 [C] \$1164.80 [D] \$2465.11

3. Use any problem solving strategy to solve the following problem. Randy has \$1,000 he wants to invest and has a choice between two accounts. He can invest in an account paying 5.2% interest, compounded semi-annually, for 2 years or an account paying 5.2% compounded annually for 3 years. Which account will earn Randy more money?

4. A bank displayed this sign:

	Special investments	
Minimum Deposit	Compounded	Annual Rate
\$2000	quarterly	5%
\$5000	monthly	6%
\$10,000	semi - annually	8%

Jeff has \$10,000 to invest for 3 years. Compare the worth of his investment if he chose the 6% compounded monthly account with the amount he would have if he deposited the money in the 8% compounded semi-annually account.

[1] C

[2] C

[3] He should choose the account paying 5.2% compounded annually for 3 years.

[4] 6% account: \$11,966.81; 8% account: \$12,653.19; 8% account yields about \$686.38 more.