

Algebra II Practice F.IF.B.4: Evaluating Exponential Expressions

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NAME: \_\_\_\_\_

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 8.5% for 5 years compounded quarterly.

[A] \$4600.84                      [B] \$1353.29                      [C] \$1370.52                      [D] \$38,250

3. Find the amount accumulated on \$500 invested at 6.5% for 2 years compounded semi-annually.

[A] \$568.24                      [B] \$6500                      [C] \$567.11                      [D] \$643.23

4. Find the amount accumulated on \$800 invested at 5.5% for 3 years compounded quarterly.

[A] \$939.39                      [B] \$942.45                      [C] \$1520.97                      [D] \$13,200

5. Find the amount accumulated on \$400 invested at 4.5% for 3 years compounded semi-annually.

[A] \$5400                      [B] \$457.13                      [C] \$456.47                      [D] \$520.90

6. Find the amount accumulated on \$600 invested at 4.5% for 5 years compounded semi-annually.

[A] \$747.71                      [B] \$13,500                      [C] \$931.78                      [D] \$749.52

7. Find the amount accumulated on \$300 invested at 8.5% for 2 years compounded quarterly.

[A] \$353.17

[B] \$576.18

[C] \$5100

[D] \$354.96

8. 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

9. 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?

10. 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.

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[1] C

[2] C

[3] A

[4] B

[5] B

[6] D

[7] D

[8] C

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

[10] 6% account: \$11,966.81; 8% account: \$12,653.19; 8% account yields about \$686.38 more.