

Name: _____ Period: _____ Date: _____

Exponential Functions Exit Quiz

Solve problems involving exponential growth and decay.

Nelda invested \$5000 in a certain venture with following terms below.

A. 5% interest compounded annually for 3 years. Use manual calculation.

	Time	Calculation	Amount
	0	-	5000
1.	1		
2.	2		
3	3		

B. 10% interest for 5 years compounded

4. Quarterly

5. Monthly

Exponential Functions Exit Quiz

Answer:

Solve problems involving exponential growth and decay.

Nelda invested \$5000 in a certain venture with following terms below.

A. 5% interest compounded annually for 3 years. Use manual calculation.

	Time	Calculation	Amount
	0	-	5000
1.	1	$5000 + (5000(0.05))$	5250
2.	2	$5250 + (5250(0.05))$	5512.5
3	3	$5512.5 + (5512.5(0.05))$	5788.125

B. 10% interest for 5 years compounded

4. Quarterly

Solution:

$$N_5 = 5000 \left(1 + \frac{0.1}{4} \right)^{5(4)} = 8193.1$$

5. Monthly

Solution:

$$N_5 = 5000 \left(1 + \frac{0.1}{12} \right)^{5(12)} = 8226.54$$