9.5	5H Are You Interested?	Name:	Per:				
SH	OW YOUR WORK FOR FULL CREDIT.	NO WORK, NO CREDIT. NO WORK IN PEN.					
1.	years, but each year, she has to pay	with a financing option. She doesn't have to make y 15% interest on the original loan amount of \$100 ye to pay for the first year on her loan?	00.				
	b. How much more money will sh	he have to pay in interest the second year?					
	c. To the right, make a table to sh	now how much money she will have to pay					
	including interest and the origin	nal amount each year.					
	d. Write an equation to calculate t	the amount due with interest for any year					
	e. How much will she have to pay	y total for the full 5 years?					
	f. Explain how you figured your	answer for part e.					
2.		•	1				
	Write an equation that would calculate any amount of simple interest on any size loan.						
	Write an equation that would calculate the total amount of money due for any size on any year of a simple loan.						
	c. Explain each of the variables y	ou used in your equation in part b:					
	Miranda recognizes that Natalie with bought a computer at the same price her interest rate is only 12.5%. The annually . (She will pay interest on Make a table to show how much shad. How much interest will she have	ill pay a lot in interest. She mentioned that she ce and will pay it off in the same 5 years, but e difference is that her interest is compounded in the initial amount as well as the past interest.). The pays on her loan each year for 5 years. The pays of the first year on her loan?					
	c. How much will Miranda pay to	otal over the 5 years?					
	d. What equation shows Miranda'	's debt over the 5 years:					
	e. Explain the different elements	of the equation you used:	_				
5.	Graph and label both equations tha	at you wrote for Miranda and Natalie.					
6.	Whose payment plan is better?	How do you know?	_				
			_				
7.		pirthday. She put it in a bank with a 7.5% interest					
	compounded yearly. Assuming she a. Write a recursive equation.	e doesn't deposit or withdrawn from it,					
	-	escribe the amount of money in the bank.					
		ve in the bank by her 21st birthday?					
		ve in the bank on her 50 th birthday?					
	== === : initial initial with the						

8.		ter earned \$1500 and deposited the money that earned 5%	% inter	est	yearly.					
		f the growth is arithmetic,								
a. Write a recursive equation that describes the amount of money in the bank.b. Write an explicit equation that describes the amount of money in the bank.										
	C.	J								-
	_	If the growth is geometric,								
	d.	Write a recursive equation that describes the amount of money in the bank.								
	e.	Write an explicit equation that describes the amount of money in the bank.								
f. How much money would Peter have in 5 years?										
 g. Write the equation if his initial deposit was only \$1000? h. How much money would he have in 5 years if his initial deposit was only \$1000? i. Write the explicit equation if he put \$1500 in an account that paid 5.25% yearly? 										
	j.	How much money would he have in 5 years with this hi	gher in	nter	est rate	?				-
	k.	At this rate, when will Peter have \$20,000 in his accoun	ıt?							-
	1.	Find $f(20)$. What does that mean?								-
9.	Us	sing the points $(2, 5)$ and $(3, 20)$.								
		a. Complete the table for the		e.	-	lete the				
		ARITHMETIC sequence.			GEO	METRI	C seque	ence		
		X 2 3 4 5	X		2	3	4		5	
		Y 5 20	Y		5	20				
		b. Write a recursive equation for the		f.	Write	a recurs	ive equ	atio	n for the	
		sequence.		sequence.						_
	c. Write an explicit equation for the		g. Write an explicit equation for the						for the	
	Sequence									_
		d. Find $f(10)$		h.	_					
		, , ,			,	, ,				
10.	Mc	Kenna buys a new car for \$20,000. The depreciation (loss	s in va	lue) of the	car is 18	8% each	ı yea	ar.	
a. Make a table to show the worth of the car each year for 5 years.										
b. Write the explicit equation to show the value of the car at t years?										
c. Write a recursive equation d. How much will her car be worth after 10 years										
e. How long will it take McKenna's car to be worth under \$500?										
	1.	Thow long before McKenna's car is worth hothing? Expla	aIII				_			
							_			
11		If $f(x) = 3(0.85)^x$	d.	Co	mmon	Ratio (N	Multipli	er)		
	a. Make a table.									
		b. Increasing or								
		decreasing?	e	Fir	$\operatorname{ad} f(5)$)=				
			٠.	. 11	j (0)	,				
		c. Find the Initial amount or $f(0)$								

12. If <i>g</i>	$(x) = 3(1.15)^x$	d.	Common Ratio (M	(Multiplier)		
a.	Make a table.					
b.	Increasing or decreasing?					
c.	Find the Initial amount or $g(0)$					
		e.	Find $g(5) =$			