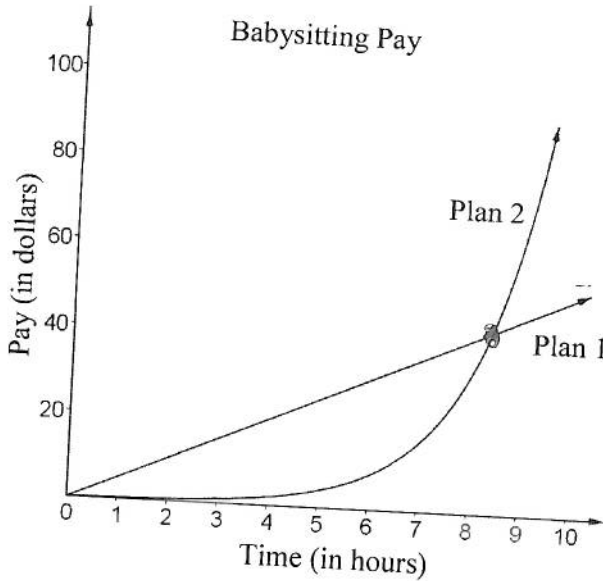


Review

Compare Linear and Exponential Functions

Name Key Date _____

Sara has been asked to babysit for a neighbor. She is offered two payment options. With the first plan, she is paid \$5.00 per hour. With the second plan, she is paid \$0.25 for one hour, \$0.50 for two hours, \$1.00 for three hours, and so on, as shown in both the graph and the table.



Hours	Plan 1	Plan 2
1	5.00	0.25
2	10.00	0.50
3	15.00	1.00
4	20.00	2.00
5	25.00	4.00
6	30.00	8.00
7	35.00	16.00
8	40.00	32.00
9	45.00	64.00
10	50.00	128.00

1. What type of function is represented by Plan 1? arithmetic/linear
2. What type of function is represented by Plan 2? geometric/exponential
3. How are the plans alike? Explain.
 - They are both increasing
 - both start at 0
4. How are the plans different? Explain

Plan 1 grows at a constant rate of change (slope)

Plan 2 is growing exponentially after 8 hours Sara will start making much more than Plan 1
5. Sara asks you which plan she should choose if she was going to babysit for four hours. What would you tell her? Justify your answer.

Plan 1, using the graph or table you can see she would make much more for four hours.
6. When should Sara choose Plan 2? Why?

If she is going to work more than 8 hours. Since the amount she is making doubles every hour, she will start making much more than just adding five dollars every hour at that point.