

Name: _____

Period: _____

Inline Skates Rental Problem

Julio and Luis wanted to rent some inline skates at the park and spend the afternoon skating around the area. When they arrived at the park, they found two skate rental shops from which to choose. “Revolution Rentals” rents their inline skates for \$2.50 per hour, but there is a \$10.00 minimum charge. At “Sk8ers Ruul” there is a \$5.00 setup fee, along with a charge of \$1.50 per hour.

Explore the different rental charges for Revolution Rentals and Sk8ers Ruul. Your graphing calculator can help you to investigate this situation thoroughly. Enter the range of rental time from 0 – 7 hours in List 1. In List 2, enter the cost of renting skates at Revolution Rentals for each of the times, and within List 3 enter the cost for skate rental at Sk8ers Ruul. Use the graphing feature of your calculator to create line graphs that compare the rental charges for both companies. When you are satisfied that you understand the relationship between the two stores’ charges, answer the following:

Investigate this situation, and answer the following questions:

1. What would both shops charge to rent skates for 3 hours?
2. Explain how the rental charges for each rental shop change as time goes by.
3. Is one shop less expensive than the other? Explain
4. Is there a point at which the rental charges from both shops would be the same? Explain
5. Pretend that you are Julio. Determine how long you and Luis will skate, select a rental shop, determine what your rental fee will be, and explain why your choice will cost less.
6. Bonus: Write a mathematical expression that represents the rental charges for Sk8ers Ruul.