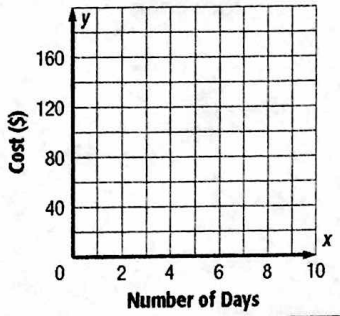
NAME _____ DATE _____ PERIOD _____

Problem-Solving Practice

Slope-Intercept Form

CAR RENTAL For Exercises 1 and 2, use the following information.
Ace Car Rentals charges $20 per day plus a $10 service charge to rent one of its compact cars. The total cost can be represented by the equation $y = 20x + 10$, where x is the number of days and y is the total cost.

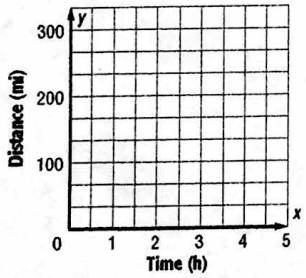
1. Graph the equation. What do the slope and y-intercept represent?



2. Explain how to use your graph to find the total cost of renting a compact car for 7 days. Then find this cost.

TRAVEL For Exercises 3 and 4, use the following information.
Thomas is driving from Oak Ridge to Lakeview, a distance of 300 miles. He drives at a constant 60 miles per hour. The equation for the distance yet to go is $y = 300 - 60x$, where x is the number of hours since he left.

3. What is the slope and y-intercept? Explain how to use the slope and y-intercept to graph the equation. Then graph the equation.



4. Explain how to find the total travel time. Then find this time.

5. WEATHER The equation $y = 0.2x + 3.5$ can be used to find the amount of accumulated snow y in inches x hours after 5 P.M. on a certain day. Identify the slope and y-intercept of the graph of the equation and explain what each represents.

6. SALARY Janette's weekly salary can be represented by the equation $y = 500 + 0.4x$, where x is the dollar total of her sales for the week. Identify the slope and y-intercept of the graph of the equation and explain what each represents.