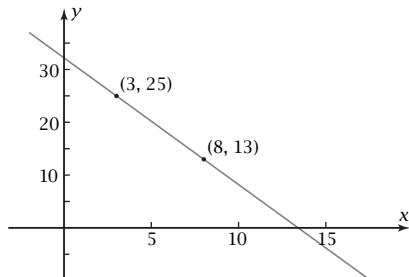


## Exploration 7-2a: Graphical Patterns in Functions

Date: \_\_\_\_\_

**Objective:** Find the particular equation of a linear, quadratic, power, or exponential function from a given graph.

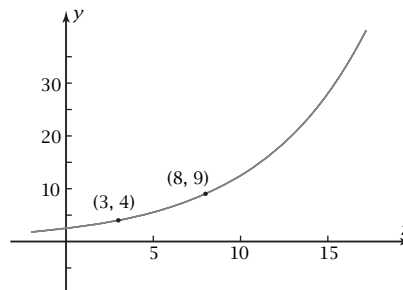
1. Identify what kind of function is graphed, and find its particular equation.



2. Check your answer to Problem 1 graphically. Does your graph agree with the given one?

3. Does the graph in problem 1 have an asymptote? If so, what is its equation?

4. What graphical evidence do you have that the function graphed is an exponential function, not a power function? Find its particular equation.



5. Check your answer to Problem 4 graphically. Does your graph agree with the given one?

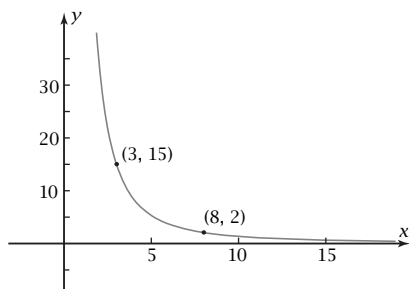
6. Does the graph in problem 3 have an asymptote? If so, what is its equation?

(Over)

**Exploration 7-2a: Graphical Patterns in Functions** continued

Date: \_\_\_\_\_

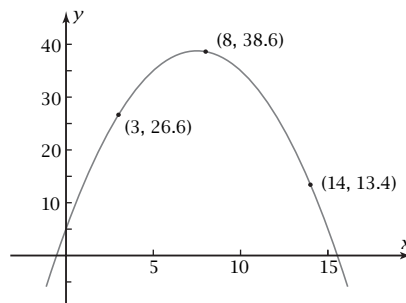
7. What graphical evidence do you have that this function is a power function, not an exponential function? Find its particular equation.



8. Check your answer to Problem 7 graphically. Does your graph agree with the given one?

9. Does the graph in problem 7 have an asymptote? If so, what is its equation?

10. Identify what kind of function is graphed, and find its particular equation.



11. Check your answer to Problem 10 graphically. Does your graph agree with the given one?

12. Does the graph in problem 10 have an asymptote? If so, what is its equation?

13. What did you learn as a result of doing this Exploration that you did not know before?