$\qquad$ Period

## Chapter 6: Scatter Plot

Directions: Estimate an answer for each question, and then I will give you missing information. Use the information to create your own scatter plot. Then model and analyze your data.

| Celebrity | Estimate of Age | Actual Age |
| :--- | :--- | :--- |
| 1. Katy Perry |  |  |
| 2. Jason Derulo |  |  |
| 3. Lil Wayne |  |  |
| 4. Justin Timberlake |  |  |
| 5. David Beckham |  |  |
| 6. Kobe Bryant |  |  |
| 7. Serena Williams |  |  |
| 8. Olivia Wilde |  |  |
| 9. Will Smith |  |  |
| 10. Harrison Ford |  |  |
| 11. Pres. Obama |  |  |
| 12. Demi Lovato |  |  |

Modeling your Data: Label your axes and title your graph. Plot the points to create your scatter plot.

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1) Describe the direction, form, and strength.
2) Is there an association or correlation between the variables? Why?
3) Enter your data in your calculator. Determine the linear regression model.
4) Find the correlation coefficient. Explain what your correlation coefficient represents in this context.
5) Compare your graph to another student's. How is their direction, form, and strength different than yours?
6) Compare your correlation coefficient. What does it mean compared to yours?
7) Using your model, what would the actual age of a celebrity be if your estimate was 34 ?
8) Using your model, what would the estimated age of a celebrity be if the actual age was 19 ?
