

Ages of Famous Personalities

Algebra 1 Level

Name _____



Supplies: Graphing Calculator, PowerPoint presentation

Task: You will be seeing photographs of twenty famous people. As you see the photos, record the names of each individual and your best estimate as to the person's age. If you do not know the person, take your best guess as to the age from observing the photo. Actual ages will be the age at the end of the current year.

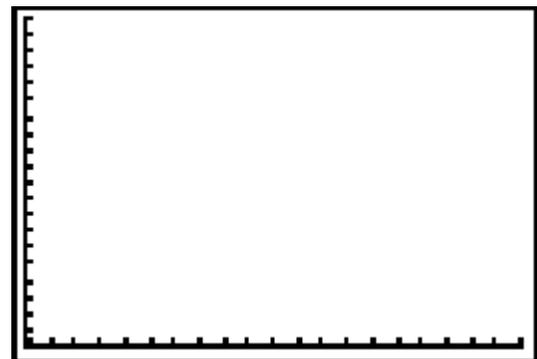
| Famous Personality | Estimated Age | Actual Age |
|--------------------|---------------|------------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |
| 17. | | |
| 18. | | |
| 19. | | |
| 20. | | |

1. Using your graphing calculator, prepare a scatter plot using the estimated age on the x -axis and the actual age on the y -axis. Sketch the scatter plot on the grid at the right. Be sure to label your axes and scale.

2. Choosing two points, find the equation of the line of best fit (model equation) for your data.

Points: (,) & (,) Slope: _____

Equation: _____



3. Using your graphing calculator, find the linear regression equation, the calculator's line of best fit, for your data. _____

4. What is the correlation coefficient? _____ What does it tell you about the fit of the calculator's linear regression?
5. What is an appropriate domain for graphing age data in general? _____
6. If you had guessed all of the ages correctly, what would be the equation of the line representing these correct guesses? _____
7. Did you, in general, overestimate or underestimate the ages? _____
8. a. What percent of your estimated ages were correct? _____
- b. What percent of your estimated ages were above the actual ages? _____
9. *Interpolate*: If you guessed that a person's age was 26, what would the exact age be based upon the calculator's model equation? _____
10. *Interpolate*: If a person's actual age was 37, what would have been the estimated age based upon the calculator's model equation? _____
11. *Extrapolate*: If a person's estimated age was 80, what would have been the actual age based upon the calculator's model equation? _____
12. a. What is your age? _____
- b. Based upon the calculator's model equation, what is your estimated age? _____
13. a. Which personality had the greatest difference between the estimated age and the actual age?

- b. What is the AVERAGE of the differences between the actual ages and the estimated ages for all of the personalities? _____