

2A. 8 (A) analyze data to select the appropriate model from among linear, quadratic, and exponential models; 2A. 8 (B) use regression methods available through technology to write a linear function, a quadratic function, and an exponential function from a given set of data;
2A. 8 (C) predict and make decisions and critical judgments from a given set of data using linear, quadratic, and exponential models.

We will be able to use regression models to determine type of model, analyze data and make predictions.

WHAT WE NEED:

- TI - 84

I WILL BE ABLE TO COMPLETE MY HOMEWORK GIVING THE

- Linear
- Exponential
- Quadratic
- Power

REGRESSION MODEL OF THE DATA.

## Clear your calculator 2nd + 712

Depth (in Pressure (in meters) atmospheres)
$10 \quad 15.0$
20
31.0

30
44.5

40
60.1

50
74.8

60
88.1

| Year | Salary (in <br> thousands) |
| :---: | :---: |
| 1967 | 19.0 |
| 1976 | 51.5 |
| 1979 | 114 |
| 1982 | 242 |
| 1984 | 329 |
| 1986 | 413 |
| 1989 | 497 |

Length (in inches)
5.5
10.6

15
17
19.6

22
25
5.4

28
7.4
\#4

Linear Res

$$
\begin{gathered}
y=1.464 x+1 \quad y=23.220 x-1629.625 \\
y=.321 x-2.983
\end{gathered}
$$


\# 5
\# 0
\# A
Quadrat ra Exponential
Power

$$
\begin{aligned}
& y=-.002 x^{2}+1.573 x-.45 \\
& y=1.291 x^{2}-177.799 x+6127.127 \\
& y=.018 x^{2}-.284 x+1.213
\end{aligned}
$$

$$
y=13.804\left(1.034^{x}\right)
$$

$$
y=1.569 x^{.987}
$$



