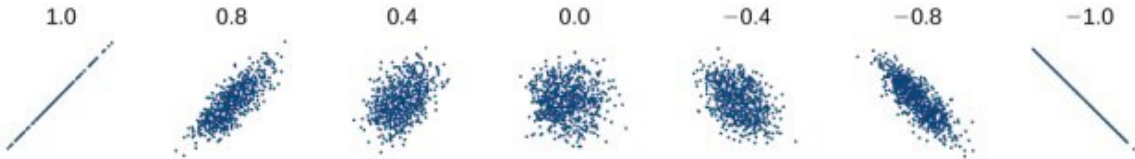


Precalculus

1-10 Mathematical Modeling

Mathematical modeling

- Find a function to _____
- Least squares regression (_____)
- Gives the _____ line
- The amount of error is given by the _____ (r)



Number (in 1000s) of female USAF personnel, P , on active duty

Year	2000	2001	2002	2003	2004
P	66.8	67.6	71.5	73.5	73.8

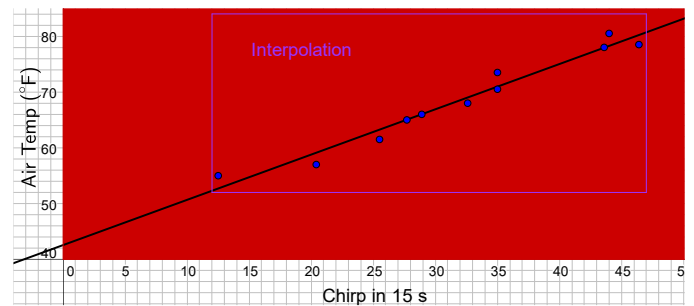
Find a model with $t = 0$ being 2000

Real-Life Problems

- Slope = _____

Interpolation and Extrapolation

- Interpolation
 - _____ data
 - _____ error
- Extrapolation
 - _____ of data
 - _____ error



Variations

- Direct _____
 - $x \uparrow, y \uparrow$
 - $x \uparrow, y \downarrow$
- Joint _____
- $a =$ _____

A company found the demand for its product varies inversely as the price of the product. When the price is \$2.75, the demand is 600 units. Write an equation.