

Algebra 1 4.5

Investigate relationships between quantities by using scatterplots

Use lines of fit to make and evaluate predictions

bivariate data

line of fit (prediction equation)

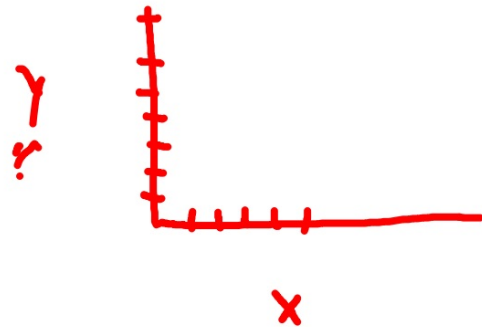
independent variable (x)

Dependent variable (y)

interpolation

extrapolation

correlation

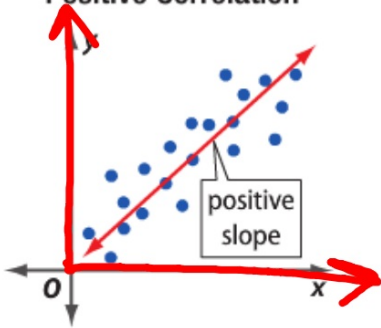


Activity: Ht vs wingspan

ConceptSummary Scatter Plots

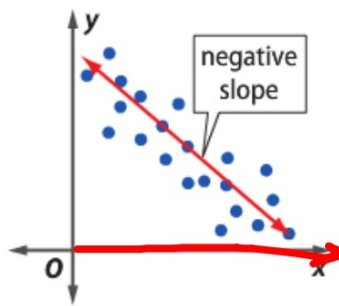


Positive Correlation



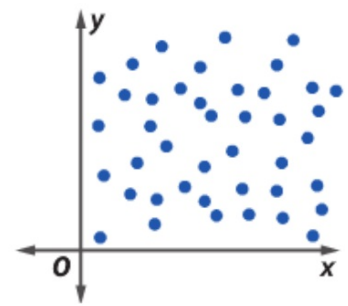
As x increases, y increases

Negative Correlation



As x decreases, y decreases

No Correlation



x and y are not related

Ht. vs. wingspan activ.

$$(20, 9) \quad (100, 4)$$

$$\frac{4-9}{100-20} = \frac{-5}{80} = -0.0625$$

$$y = mx + B$$

$$9 = -0.0625(20) + B$$

$$9 = -1.25 + B$$

$$+1.25 \quad +1.25$$

$$10.25 = B$$

$$y = -0.0625x + 10.25$$

$$= -0.0625(50) + 10.25$$

$$-3.125 + 10.25$$

$$7.125$$

p253 26-40 all
(Mon.)