

PreMajor 04212022

Evaluate each expression.

1) $(1 + 1) \div (5 - 3)$

- A) 4 B) 1
C) 0 D) 7

2) $(2 + 6)^2 - 6$

- A) 58 B) 57
C) 55 D) 63

Solve each equation.

3) $22 = a + 18$

- A) {40} B) $\left\{\frac{11}{9}\right\}$
C) {2} D) {4}

4) $x - 13 = -2$

- A) {-26} B) {-15}
C) $\left\{-\frac{2}{13}\right\}$ D) {11}

5) $-206 = 3(8a - 2) - 8$

- A) {-15} B) {-8}
C) No solution. D) {-5}

6) $4(1 - 8b) - 3b = 249$

- A) {15} B) {-15}
C) No solution. D) {-7}

Find the slope of the line through each pair of points.

7) $(-7, -9), (-11, -6)$

- A) $\frac{4}{3}$ B) $\frac{3}{4}$
C) $-\frac{3}{4}$ D) $-\frac{4}{3}$

8) $(-14, 5), (9, -15)$

- A) $\frac{20}{23}$ B) $-\frac{23}{20}$
C) $-\frac{20}{23}$ D) $\frac{23}{20}$

Find the mode, median, and mean for each data set.

9) Goals in a Hockey Game

9 7 7 5 3 3 7 5
3

- A) Mode = 5, Median = 5 and Mean = 6.33
B) Mode = 3 and 7, Median = 5 and Mean = 5.44
C) Mode = 5, Median = 5 and Mean = 4.89
D) Mode = 7, Median = 7 and Mean = 6.78

10) Goals in a Hockey Game

7 6 7 5 5 3 3 7
6

- A) Mode = 7, Median = 7 and Mean = 5.78
B) Mode = 5, Median = 6 and Mean = 6.33
C) Mode = 5, Median = 5 and Mean = 5.89
D) Mode = 7, Median = 6 and Mean = 5.44

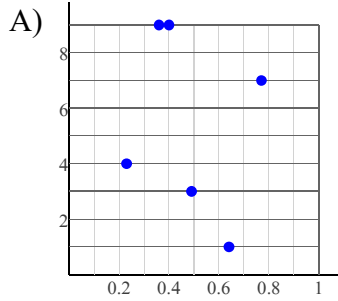
Construct a scatter plot. State if there appears to be a positive correlation, negative correlation, or no correlation. When there is a correlation, find the slope-intercept form of the equation of the line that best fits the data.

11)

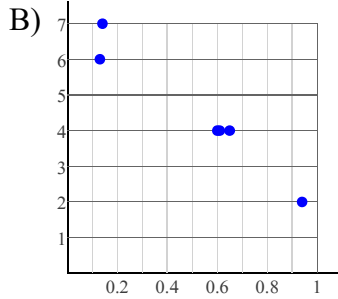
X	Y
0.6	4
0.61	4

X	Y
0.13	6
0.65	4

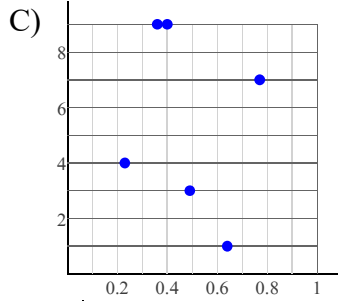
X	Y
0.14	7
0.94	2



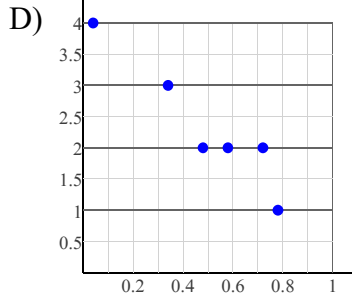
Positive correlation
 $y = -3.2887x + 7.0841$



Negative correlation
 $y = -5.4278x + 7.2772$



No correlation



Negative correlation
 $y = -3.6197x + 4.107$