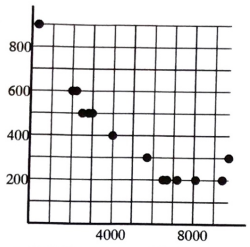
Algebra 2

Name KEY

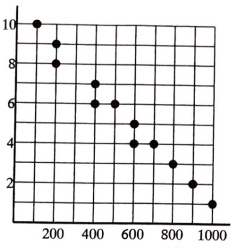
Correlation & Regression Practice

Date_____ Period____

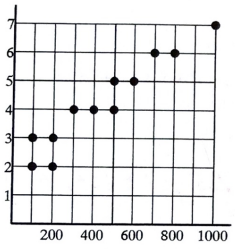
State if there appears to be a positive correlation, negative correlation, or no correlation.

1) 

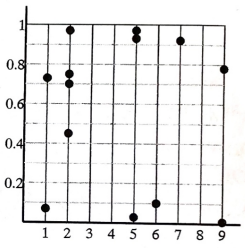
NEGATIVE

2) 

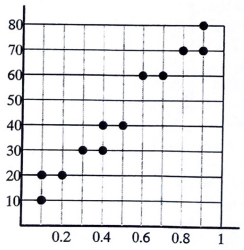
NEGATIVE

3) 

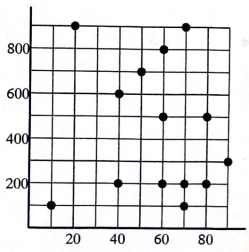
POSITIVE

4) 

NO CORRELATION

5) 

POSITIVE

6) 

NO CORRELATION

Use DESMOS!!!
a) Make a scatter plot.
b) State if there appears to be a positive, negative, or no correlation.
c) Identify the relationship as linear or quadratic.
d) Find the equation of the line or parabola that best fits the data.

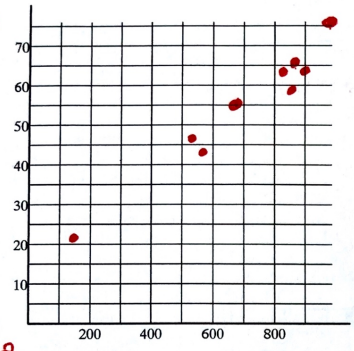
7)

X	Y
170	22
540	47
550	44
670	55

X	Y
690	55
820	64
830	59

X	Y
860	66
900	64
990	76

a)



* R^2 ARE THE SAME FOR BOTH LINEAR & QUADRATIC EQUATIONS

b) POSITIVE CORRELATION

c) EITHER

d) $y = .06x + 11.7$

$y = 8.3 \times 10^{-7} x^2 + .06x + 11.9$

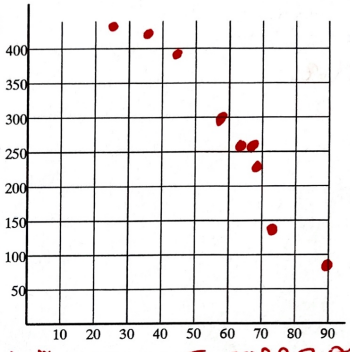
8)

X	Y
26	440
36	420
44	390
59	300

X	Y
59	300
63	260
67	260

X	Y
69	230
72	140
90	80

a)



b) NEGATIVE CORRELATION

c) QUADRATIC

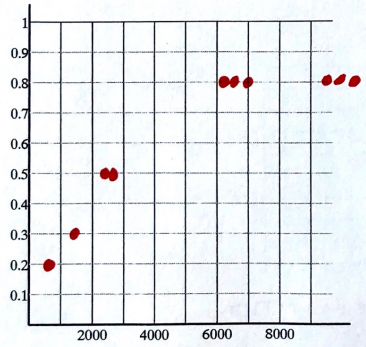
d) $y = -.04x^2 - 1.68x + 523.4$

9)

X	Y
600	0.2
1,300	0.3
2,600	0.5
2,700	0.5
6,100	0.8

X	Y
6,200	0.8
7,000	0.8
9,600	0.8
9,700	0.8
9,700	0.8

a)



b) POSITIVE CORRELATION

c) QUADRATIC

d) $y = -1.16 \times 10^{-8} x^2 + .0002x + .088$

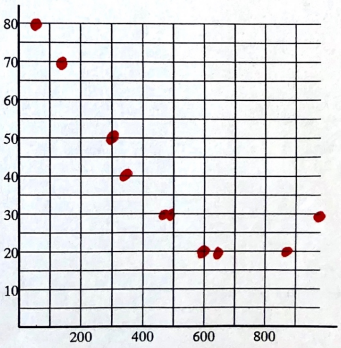
10)

X	Y
60	80
110	70
300	50
330	40

X	Y
470	30
490	30
600	20

X	Y
630	20
890	20
980	30

a)



b) NEGATIVE CORRELATION

c) QUADRATIC

d) $y = .0001x^2 - .19x + 91.4161$