Name: _____   Period: _____

4.4 Best–Fit Lines Worksheet

For 1–6, state the type of correlation that each scatter plot depicts.
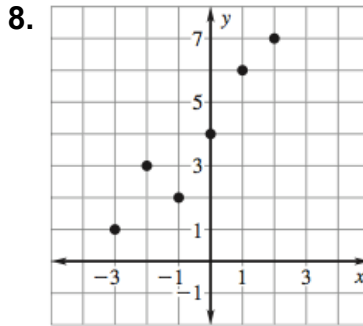
1.

2.

3.

4.

5.

6.
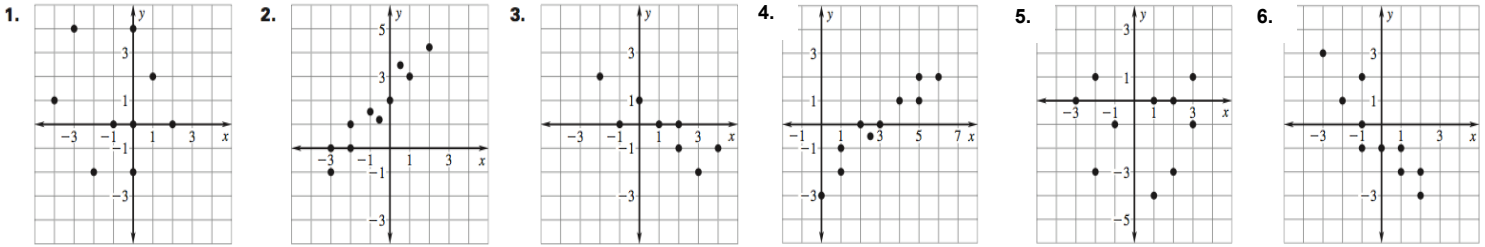
For 7–9, use a ruler to draw a best–fit line through the data. Calculate the slope (show work!) and state the y–intercept of the line you drew. Then write the equation of your best–fit line.
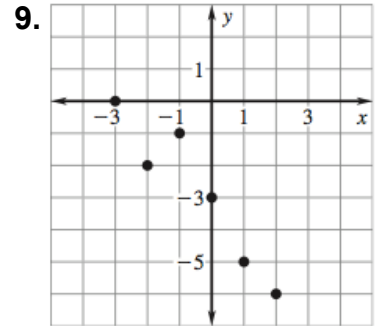
7.

m: _____

b: _____

_____
best–fit equation

8.

m: _____

b: _____

_____
best–fit equation

9.
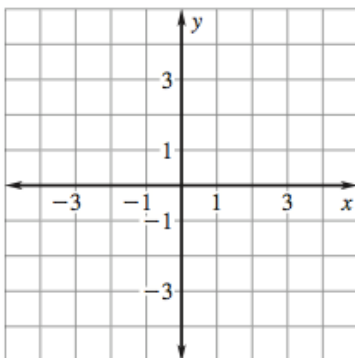
m: _____

b: _____
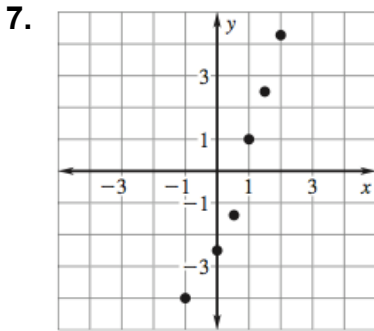
_____
best–fit equation

For 10–11, plot the points from the table. Then use a ruler to draw a best–fit line through the data and write the equation of the line.   Use the space to show your work.
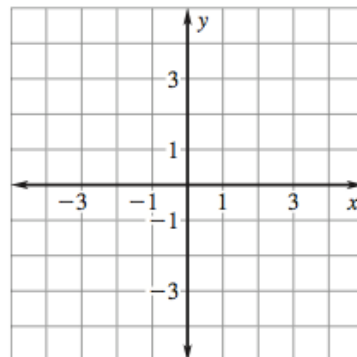
10.

x	−2	−1	0	1	2	3
y	4	2	1	−2	−1	−2

_____
best–fit equation

11.

x	0	0	0.5	1.5	2	2.5
y	−4	−3	−1.5	1	3	4

_____
best–fit equation

FLIP over to check your answers!
—>

ANSWERS:

1. relatively no correlation
2. positive correlation
3. negative correlation
4. positive correlation
5. relatively no correlation
6. negative correlation

*For 7–11 below, your equation will likely be **different** than mine since you are drawing the line by hand. But your numbers should be <u>relatively close</u> to mine.*

7. $y = 3x - 2.1$
8. $y = \frac{4}{3}x + 4.7$
9. $y = -\frac{6}{5}x - 3.5$
10. $y = -\frac{6}{5}x + 0.75$
11. $y = \frac{7}{2}x - 4$