$\qquad$
$\qquad$

Write the POINT-SLOPE FORM of the equation of the line through the given points.

1. $(3,-4)$ and $(-4,3)$
2. (-4, -5) and ( $-5,-4$ )

Write the POINT-SLOPE FORM of the equation of the line through the given point with the given slope.
3. $(2,-1)$ and $m=-\frac{1}{3}$
4. $(1,0)$ and $m=\frac{1}{2}$

Write the SLOPE-INTERCEPT FORM of the equation of the line through the given points.
5. $(-5,5)$ and $(3,-3)$
6. $(2,-2)$ and $(0,-1)$

Write the SLOPE-INTERCEPT FORM of the equation of the line through the given point with the given slope.
7. $(-2,5)$ and $m=-\frac{5}{2}$
8. $(-4,1)$ and $m=-\frac{1}{4}$

Write the SLOPE-INTERCEPT FORM of the equation of the line described.
9. through (3, -2 ) and parallel to $y=-x+5$
10. through $(-5,5)$ and parallel to $y=-\frac{4}{5} x+3$
11. through $(-2,0)$ and perpendicular to $y=-x-5$
12. through (5, -3) and perpendicular to $y=\frac{5}{6} x+5$

## Graph the following.

13. $3 x+y=1$
14. $5 x-4 y=4$



## REGRESSION

The table below is a random sample of teachers' salary from Ohio.

| Years <br> Experience | Salary <br> $(\$)$ |
| :---: | :---: |
| 2 | 38,000 |
| 2 | 40,000 |
| 2 | 39,500 |
| 4 | 42,000 |
| 4 | 44,000 |
| 4 | 44,300 |
| 5 | 46,000 |
| 5 | 47,000 |
| 8 | 54,500 |
| 10 | 60,000 |
| 10 | 58,500 |
| 12 | 63,000 |
| 12 | 66,000 |
| 15 | 72,000 |
| 15 | 71,000 |

a. Find a model that fits the data.(linear, quadratic, exponential, abs. value, etc..)
b. Use regression and write the equation of your model. $y=$
c. Use the model to salary of a teacher with 13 years' experience. WINDOW

| d. Predict the experience of a teacher making $\$ 41,000$ | xmax $=$ |
| :--- | :--- |
| $y m i n=$ |  |
| xscl $=$ | $y s c l=$ |

ANSWERS TO 1.2 CORRECTIVE ASSIGNMENT

| 1. $y+4=-(x-3)$ | 2. $y+5=-(x+4)$ | 3. $y+1=-\frac{1}{3}(x-2)$ | 4. $y=\frac{1}{2}(x-1)$ |
| :---: | :---: | :---: | :---: |
| 5. $y=-x$ | 6. $y=-\frac{1}{2} x-1$ | 7. $y=-\frac{5}{2} x$ | 8. $y=-\frac{1}{4} x$ |
| 9. $y=-x+1$ | 10. $y=-\frac{4}{5} x+1$ | 11. $y=x+2$ | 12. $y=-\frac{6}{5} x+3$ |
| 13. | 14. | 15. <br> a. linear <br> b. $y=2530.57 x+33829.17$ <br> c. $\$ 66,726.55$ <br> d. 2.834 years |  |

