

Name:

Date:

Period:

Once the following equations are written in standard form ($y = mx + b$), identify the slope and y-intercept.

REMEMBER to write the slope as a **FRACTION**.

| | Slope (m) | Y-Intercept (b) | | Slope (m) | Y-Intercept (b) | | Slope (m) | Y-Intercept (b) |
|-------------------|-----------|-----------------|---------------------------|-----------|-----------------|----------------------------|-----------|-----------------|
| 1. $y = 3x + 1$ | | | 2. $y = x - 3$ | | | 3. $y = 2x$ | | |
| 4. $y = x$ | | | 5. $y = \frac{1}{2}x + 5$ | | | 6. $y = -2x + 3$ | | |
| 7. $y = -3x$ | | | 8. $y = -x - 5$ | | | 9. $y = -\frac{2}{3}x + 4$ | | |
| 10. $y - 3x = 7$ | | | 11. $2x + y = 5$ | | | 12. $3y = 6x + 9$ | | |
| 13. $2y = 5x - 4$ | | | 14. $4x - 3y = 0$ | | | 15. $6x + 2y = 10$ | | |

Using $y = mx + b$ format, write the equation of the line whose **slope** is the **first #** given and whose **y-intercept** is the **second #** given.

| | Equation ($y = mx + b$) | | Equation ($y = mx + b$) | | Equation ($y = mx + b$) |
|--------------------------|---------------------------|--------------------------|---------------------------|-------------------------|---------------------------|
| 15. 2 and 7 | | 16. -1 and -3 | | 17. 0 and -5 | |
| 18. -3 and 0 | | 19. $\frac{2}{3}$ and 1 | | 20. $\frac{1}{2}$ and 0 | |
| 21. $-\frac{1}{3}$ and 2 | | 22. $-\frac{3}{2}$ and 0 | | 23. $\frac{1}{4}$ and 5 | |

Solve for y and identify m and b. Make sure to write slope (m) as a **fraction** and write the appropriate arrows next to each slope ($\frac{\text{Top # is } \uparrow \text{ or } \downarrow}{\text{Bottom # is } \rightarrow}$).

$y = mx + b$

| | | |
|--|--|--|
| 1. $3x + y = 1$ m = _____ b = _____ | 2. $8 - y = x$ m = _____ b = _____ | 3. $5x - 2y = 12$ m = _____ b = _____ |
| 4. $4y + 3x = 16$ m = _____ b = _____ | 5. $x - 2y = 8$ m = _____ b = _____ | 6. $6 - 3y = -3x$ m = _____ b = _____ |
| 7. $x = 5y + 5$ m = _____ b = _____ | 8. $4y + 6 = 2x - 6$ m = _____ b = _____ | 9. $3y - 7 = 4x + 2$ m = _____ b = _____ |
| 10. $6x + 3y - 15 = 0$ m = _____ b = _____ | 11. $2y + 3y = 5$ m = _____ b = _____ | 12. $-3y = -6x + 9$ m = _____ b = _____ |