Linear Forms Worksheet

1. Write the equation of the line that is parallel to $2x + 5y = 17$ through (15 , – 4) in **slope intercept form**.

2. Write the equation of the line that is perpendicular to $3x - 2y = 124$ through (–2 , – 6) in **standard form**.

3. Write the equation of the line that is perpendicular to $y = \frac{5}{3}x - 16\frac{3}{7}$ through (8 , – 1) in **standard form**.

4. Write the equation of the line that is parallel to $y = 2x - 9$ through (5 , 7) in **point slope form**.

5. Write the equation of the line that is parallel to $3x + 8y = 22$ through (–2 , – 5) in **point slope form**.

6. Write the equation of the line that is perpendicular to $(y - 9) = -\frac{4}{3}(x + 2)$ through (–1 , 3) in **standard form**.

7. Report the **x-intercept** as an ordered pair for the line that has a slope of $\frac{2}{3}$ through the point (–5 , 2).

8. Report the **x-intercept** as an ordered pair for the line that has a slope of $-\frac{4}{7}$ through the point (1 , 4).

9. Report the **y-intercept** as an ordered pair for the line that has a slope of $\frac{-1}{3}$ through the point (–2 , 7).

10. Report the **y-intercept** as an ordered pair for the line that has a slope of $\frac{3}{5}$ through the point (– 4 , 3).

Write the equation in the indicated forms.

11. $(4,-2)$
$(8,-3)$

Standard_____

Slope Int_____

12. $(-6,1)$
$(-8,2)$

Standard_____

Slope Int_____

Write the equation in the indicated forms.

13. $(8,-5)$
$(3,-7)$

Standard_____

Slope Int_____

Point Slope _____

14. $(-2,5)$
$m = \frac{-2}{3}$

Standard_____

Slope Int_____

Point Slope _____

15. $(3,7)$
$m = \frac{4}{5}$

Standard_____

Slope Int_____

Point Slope _____

Write the slope, y intercept as an ordered pair, and x intercept as an **ordered pair.**

16. $3x + 7y = -14$ m = _____ y - int = _____ x - int = _____

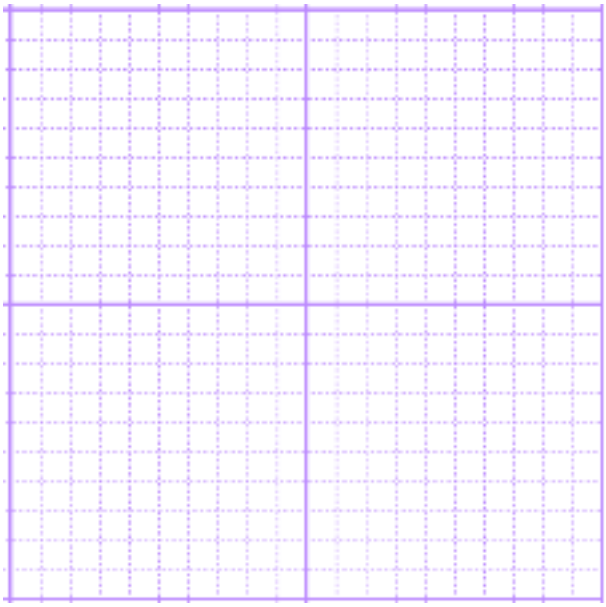
17. $x - 3y = 12$ m = _____ y - int = _____ x - int = _____

18. $y = \frac{3}{5}x - 2$ m = _____ y - int = _____ x - int = _____

19. $y = \frac{-2}{3}x + 5$ m = _____ y - int = _____ x - int = _____

20. $y = \frac{3}{5}x - 2$ m = _____ incline / decline _____ y - int = _____

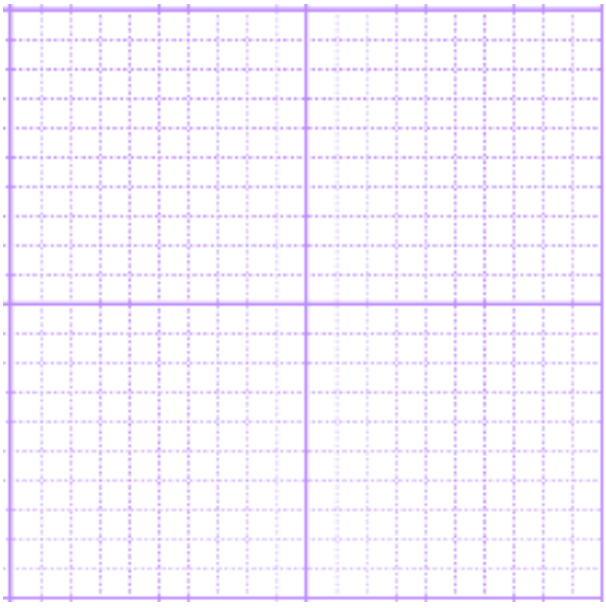
steep / shallow _____



x	y

21. $y = \frac{-1}{3}x + 7$ m = _____ incline / decline _____ y - int = _____

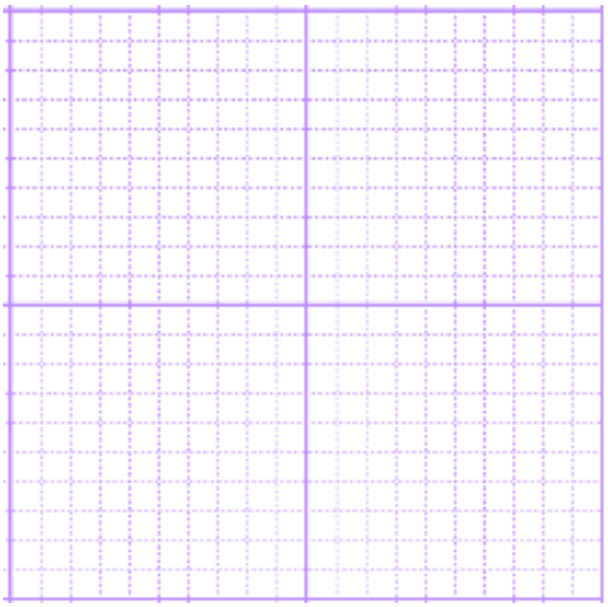
steep / shallow _____



x	y

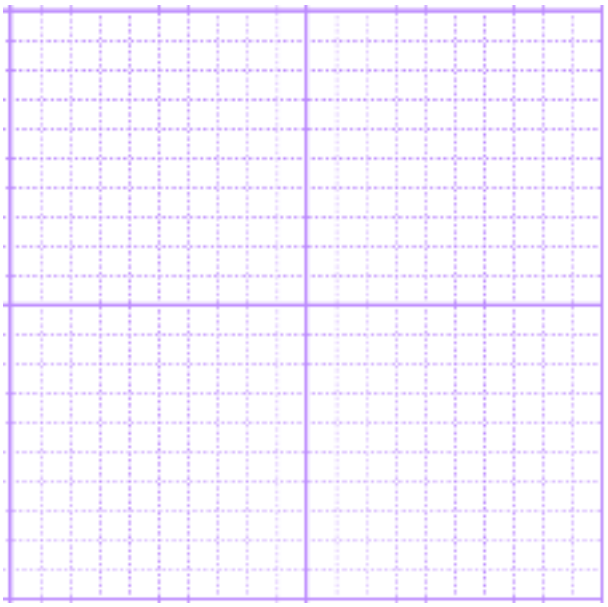
22. $3x - 2y = 6$ m = _____ incline / decline _____ y - int = _____
steep / shallow _____

x	y



23. $5x + y = 3$ m = _____ incline / decline _____ y - int = _____
steep / shallow _____

x	y

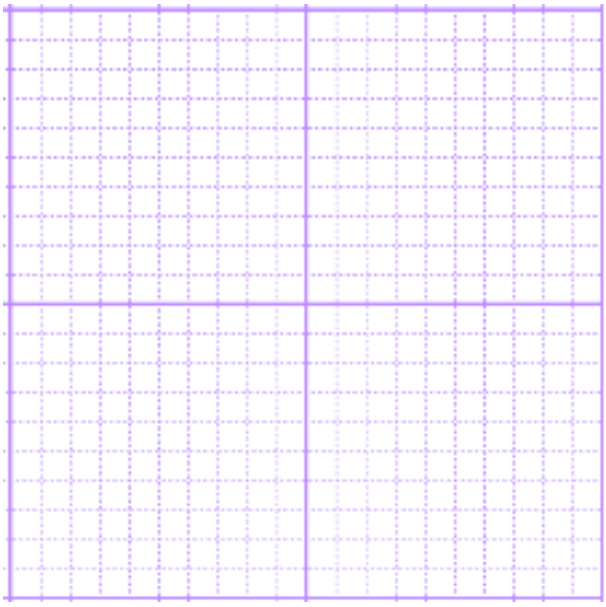


24. $y+1=\frac{3}{2}(x-4)$ m = _____ incline / decline _____ y - int = _____

steep / shallow _____

standard form _____ slope intercept form _____

x	y

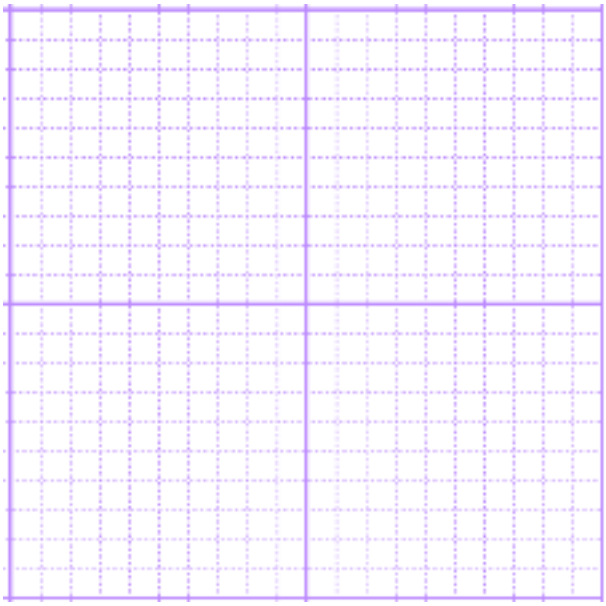


25. $y-3=\frac{-1}{2}(x+4)$ m = _____ incline / decline _____ y - int = _____

steep / shallow _____

standard form _____ slope intercept form _____

x	y



Write the slope, y intercept as an ordered pair, and x intercept as an **ordered pair**

26. $2x - 5y = 25$ m = _____ y - int = _____ x - int = _____

27. $4x - 3y = 15$ m = _____ y - int = _____ x - int = _____

28. $y = \frac{-2}{5}x + 3$ m = _____ y - int = _____ x - int = _____

29. $y = \frac{4}{3}x - \frac{1}{3}$ m = _____ y - int = _____ x - int = _____

Write the following equations.

30. Parallel to $y = \frac{3}{5}x - 9\frac{2}{3}$ through (– 1 , 4) in **standard form**.

30._____

31. Perpendicular to $y = \frac{-3}{2}x - 13\frac{1}{7}$ through (8 , –3) in **standard form**.

31._____

32. Parallel to $y = \frac{-1}{3}x - 9\frac{3}{7}$ through $(-9, 2)$ in **slope-intercept form**.

32._____

33. Perpendicular to $y = \frac{4}{3}x + 950$ through $(-4, -1)$ in **slope-intercept form**.

33._____

34. Perpendicular to $2x - 3y = 123$ through $(-2, 3)$ in **standard form.**.

34._____

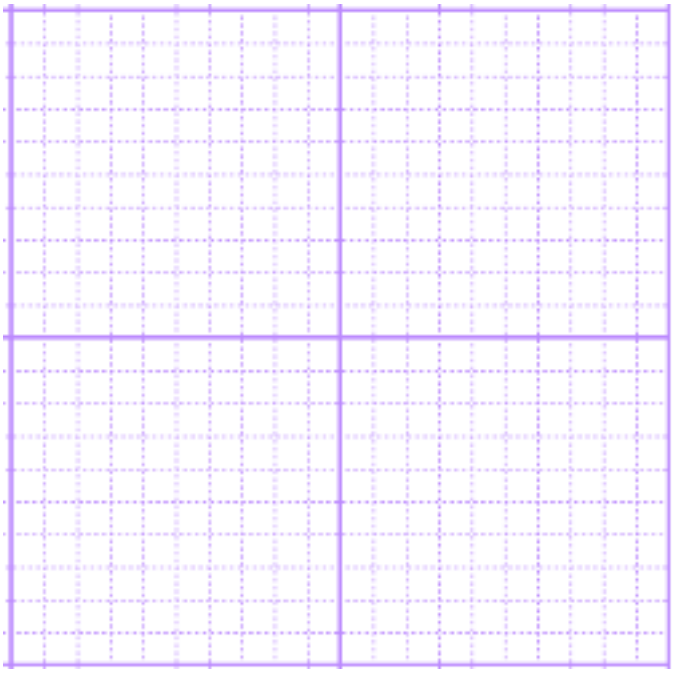
35. Perpendicular to $y - 4 = \frac{4}{3}(x + 2)$ through $(-8, -3)$ in **slope-intercept form**.

35._____

36. Perpendicular to $y - 12 = 3(x - 27)$ through $(-5, 1)$ in **standard form.**.

36._____

37. $y = 2$ m = _____ describe the line _____



38. $x = -5$ m = _____ describe the line _____