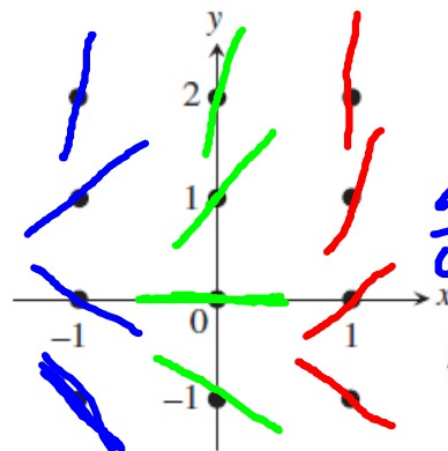


In Exercises 29–34, construct a slope field for the differential equation. In each case, copy the graph at the right and draw tiny segments through the twelve lattice points shown in the graph. Use slope analysis, not your graphing calculator.



This is a good way to draw slope fields!

$$\frac{dy}{dx} = x + 2y$$

$$\begin{pmatrix} 3 & 3 \end{pmatrix}$$

| x | y | $\frac{dy}{dx}$ |
|-----|-----|-----------------|
| -1 | -1 | -3 |
| -1 | 0 | -1 |
| -1 | 1 | 1 |
| -1 | 2 | 3 |

29. $\frac{dy}{dx} = x$

30. $\frac{dy}{dx} = y$

31. $\frac{dy}{dx} = 2x + y$

32. $\frac{dy}{dx} = 2x - y$

33. $\frac{dy}{dx} = x + 2y$

34. $\frac{dy}{dx} = x - 2y$

| x | y | $\frac{dy}{dx}$ |
|-----|-----|-----------------|
| 0 | -1 | -2 |
| 0 | 0 | 0 |
| 0 | 1 | 2 |
| 0 | 2 | 4 |

| x | y | $\frac{dy}{dx}$ |
|-----|-----|-----------------|
| -1 | -1 | -1 |
| -1 | 0 | 1 |
| -1 | 1 | 3 |
| -1 | 2 | 5 |