

**[14-02-12-T8]**

*Eqn Line*

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■ Find the point of intersection of each pair of lines. If the lines do not intersect, say so.

[1]  $y = 3x + 2$ ,  $y = 2x - 1$

[2]  $y = \frac{2}{3}x + 2$ ,  $y = x - 8$

[3]  $y = \frac{-2}{5}x + 3$ ,  $y = 5x - 8$

[4]  $y = 2$ ,  $x = 3$

[5]  $y = \frac{7}{9}x + 3$ ,  $y = \frac{7}{9}x - 5$

[6]  $y = -7x - 1$ ,  $y = 7x + 1$

[7]  $y = -3x + 5$ ,  $y = \frac{1}{3}x - 3$

[8] What do the graphs of the lines in [4] look like?

[9] What do the graphs of the lines in [5] look like?

[10] What do the graphs of the lines in [7] look like?

## Solutions

[1]  $(-3, -7)$

[2]  $(30, -22)$

[3]  $(\frac{-55}{27}, \frac{59}{27})$

[4]  $(2, 3)$

[5]  $\{\}$

[6]  $(\frac{-1}{7}, 0)$

[7]  $(\frac{12}{5}, \frac{-11}{5})$