

Analyze a Set of Equations

Consider the set of six equations shown below.

A. $y = 5x$

B. $y = \frac{1}{3}x - 2$

C. $y = -x$

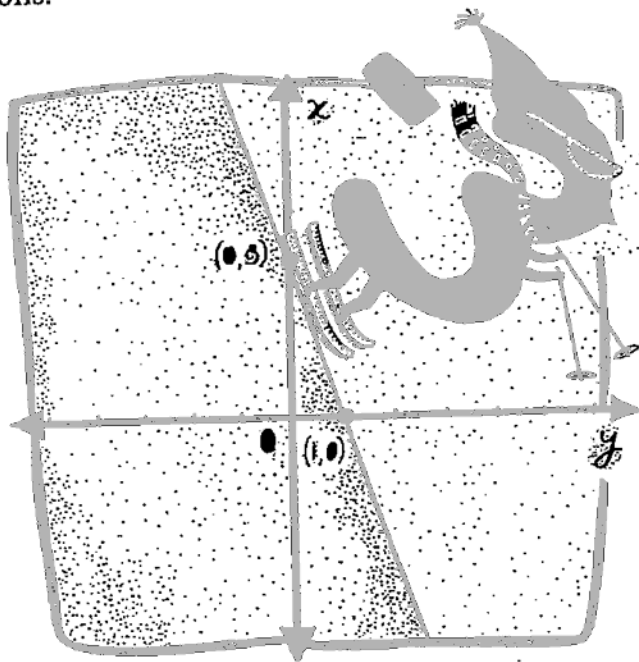
D. $y = 3x + 4$

E. $y = 0.5x + 1$

F. $y = -2x - 4\frac{1}{2}$

Work with classmates to write a response for each of the following. Be prepared to discuss your responses with the class.

- 1 Which equation has the flattest graph? How do you know?
- 2 Which equations have graphs that slant downward as you go from left to right? How do you know?
- 3 Which equation has a graph that crosses the y -axis at the highest point? Why?
- 4 Write an equation of your own whose graph would be steeper than the graph of any of the six given equations.
- 5 Write an equation of your own whose graph would be flatter than those of the six given equations.
- 6 Write an equation of your own whose graph would cross the y -axis at a lower point than would any graph of the six given equations.



What can you say about lines just by looking at their equations?

hot words | y-intercept
slope

Hotwork

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