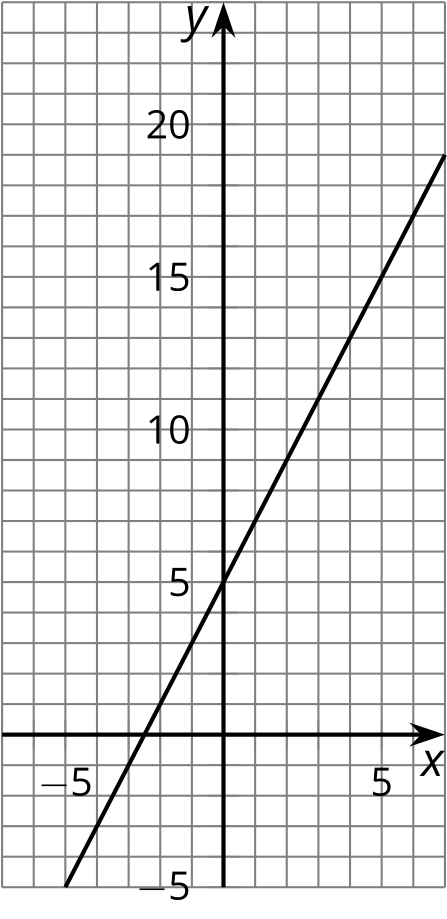
## Lesson 10: Relating Linear Equations and their Graphs

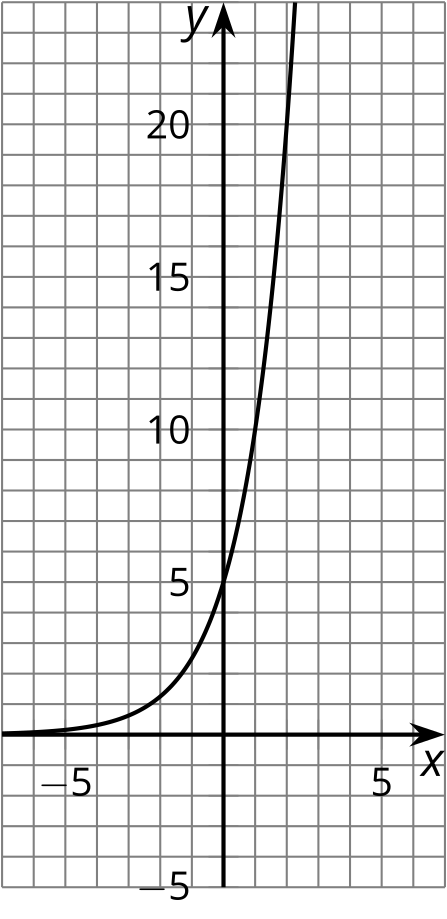
* Let’s connect functions to features of their graphs.

### 10.1: Notice and Wonder: Features of Graphs

Here are graphs of and .

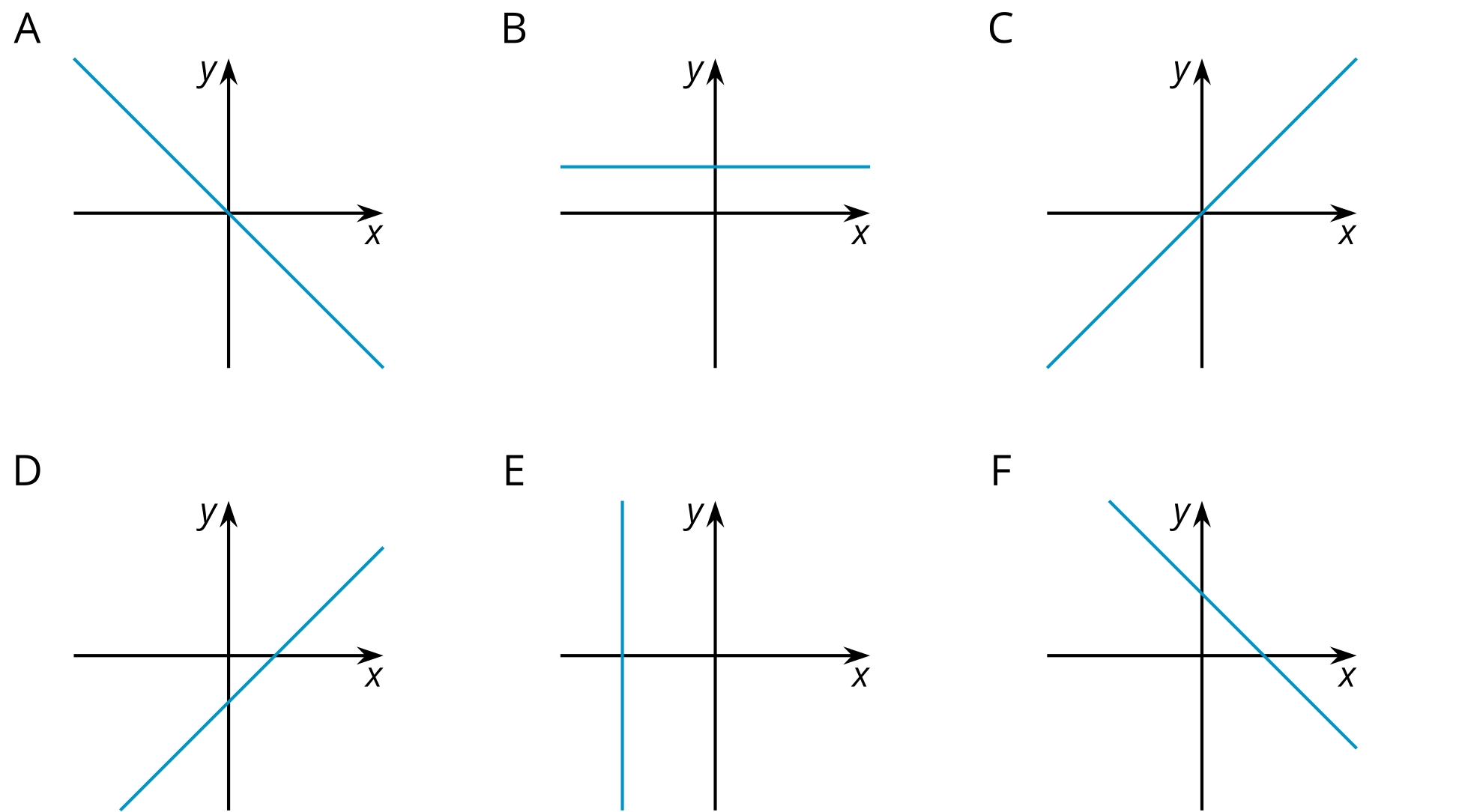
What do you notice? What do you wonder?





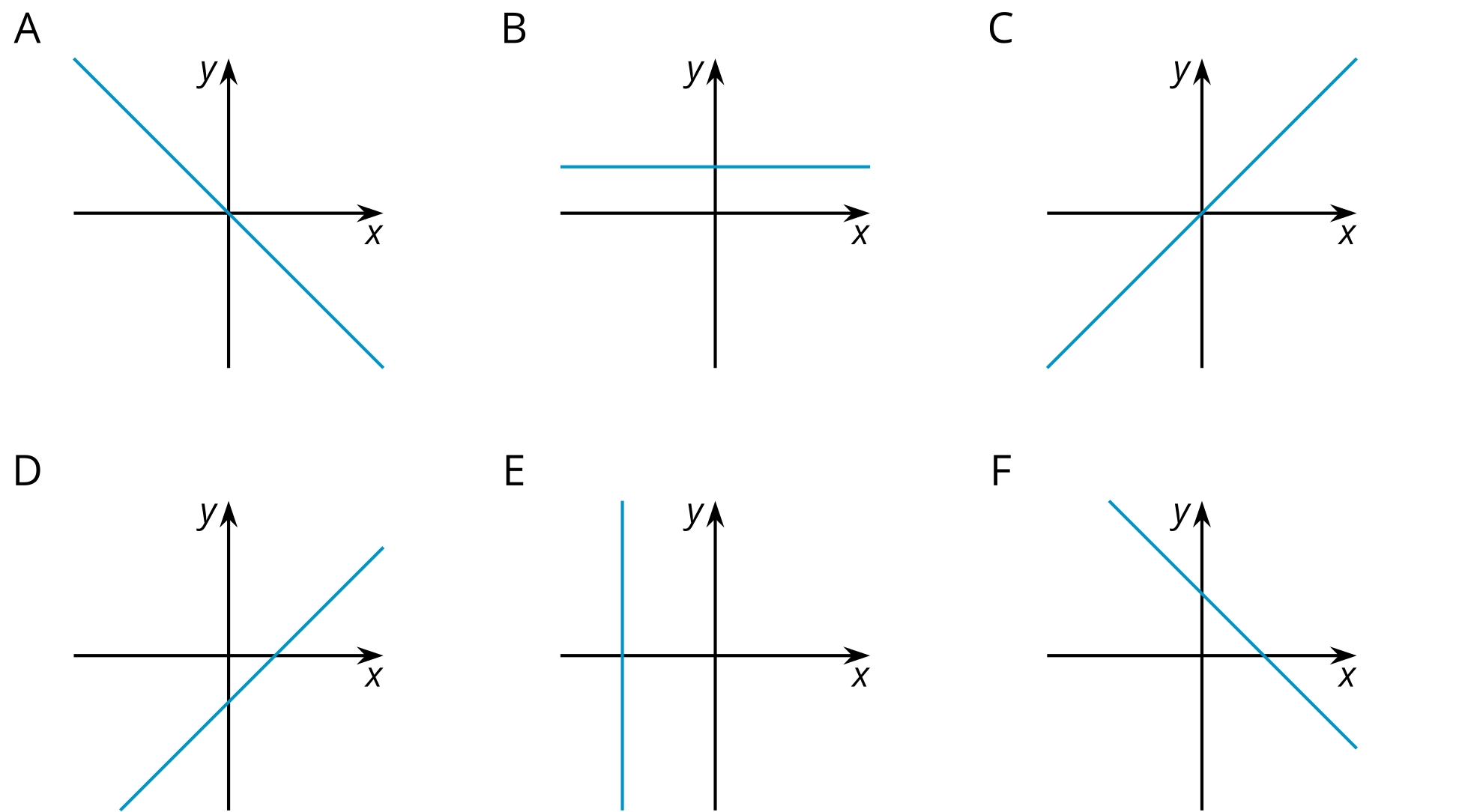
### 10.2: Making Connections

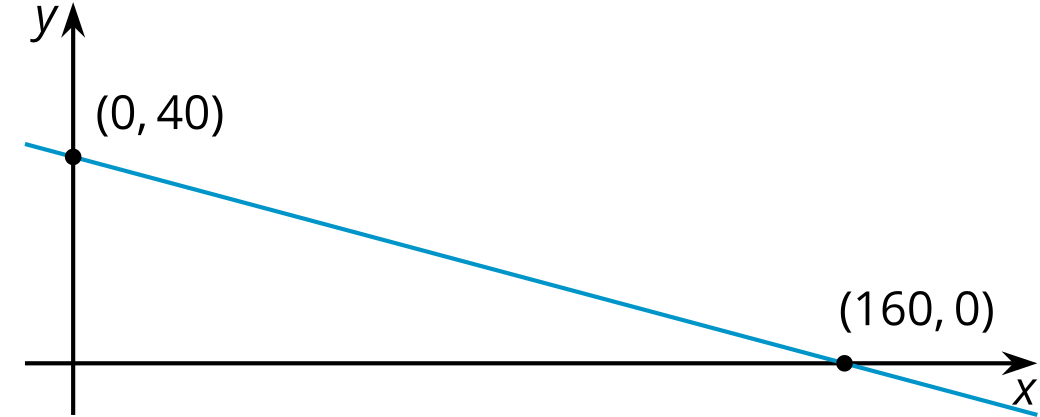
1. Here are some equations and graphs. Match each graph to one or more equations that it *could* represent. Be prepared to explain how you know.

* 

1. Choose either graph D or F. Let represent hours after noon on a given day and represent the temperature in degrees Celsius in a freezer.
   * In this situation, what does the -intercept mean, if anything?
   * In this situation, what does the -intercept mean, if anything?

### 10.3: Connecting Equations and Graphs



1. Without substituting any values for and or using technology, decide whether graph A could represent each equation, and explain how you know.
2. Write a new equation that could be represented by:
   1. Graph D
   2. Graph F
3. On this graph, represents minutes since midnight and represents temperature in degrees Fahrenheit.
   1. Explain what the intercepts tell us about the situation.
   2. Write an equation that relates the two quantities.
   * 



© CC BY 2019 by Illustrative Mathematics®