1. Write a declaration for each of the following:
   - A line that extends from point (60, 100) to point (30, 90).
     
     ```java
     Line line = new Line(60, 100, 30, 90);
     ```
   
   - An ellipse that is centered at point (150, 180) and is 100 pixels wide and 80 pixels high.
     
     ```java
     Ellipse ellipse = new Ellipse(150, 180, 100, 80);
     ```

2. Are the following lines horizontal, vertical, or neither?
   - new Line(30, 90, 30, 10) **Vertical**
   - new Line(85, 70, 70, 85) **Neither**

3. Is each of the following ellipses wider than it is tall or taller than it is wide?
   - new Ellipse(100, 200, 20, 40) **taller than it is wide**
   - new Ellipse(150, 220, 60, 30) **wider than it is tall**

4. The following code was used in the lab to create the color for the ground:
   
   ```java
   Color dirtySnow = Color.rgb(200, 220, 220);
   ground.setFill(dirtySnow);
   ```

   How would you modify the code so that the color of the ground was set randomly?

   ```java
   Color dirtySnow = Color.rgb(rand.nextInt(256), rand.nextInt(256), rand.nextInt(256));
   ground.setFill(dirtySnow);
   ```
1. Write a declaration for each of the following:
   - A rectangle that is 20 pixels wide, 100 pixels high, and has its upper-left corner at point (10, 10).
     
     ```java
     Rectangle rect = new Rectangle(10,10,20,100);
     ```
   - A circle that is centered at point (50, 75) and has a radius of 30.
     
     ```java
     Circle circ = new Circle(50,75,30);
     ```

2. Are the following lines horizontal, vertical, or neither?
   - `new Line(20, 70, 70, 85)` neither
   - `new Line(20, 40, 150, 40)` horizontal

3. Is each of the following ellipses wider than it is tall or taller than it is wide?
   - `new Ellipse(300, 100, 50, 10)` wider than it is tall
   - `new Ellipse(100, 200, 20, 40)` taller than it is wide

4. The following code was used in the lab to create the color for the ground:
   ```java
   Color dirtySnow = Color.rgb(200,220,220);
   ground.setFill(dirtySnow);
   ```

   How would you modify the code so that the color of the ground was set to black?
   ```java
   Color dirtySnow = Color.rgb(0,0,0);
   ground.setFill(dirtySnow);
   ```
   Alternatively:
   ```java
   ground.setFill(Color.BLACK);
   ```

---

Figure 3.11 Constructors for some JavaFX shape classes