

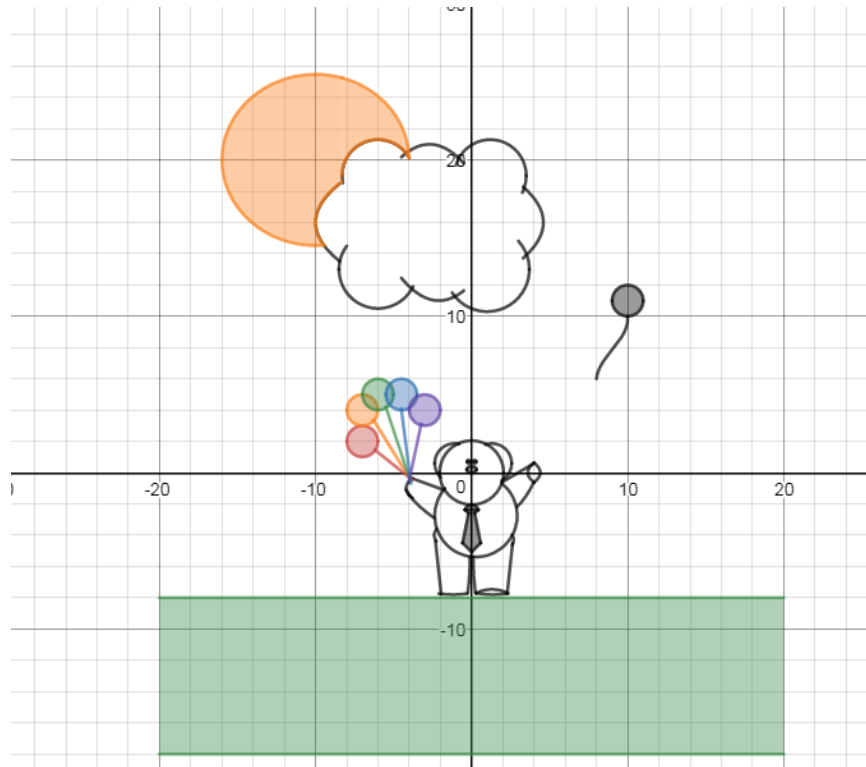
Lesson – Enrichment

Aim: How do I use functions to create a caricature?

Do Now:

To go to [www.Desmos.com](http://www.Desmos.com) to open an account. Once the account is open, we will use to graph our caricature and save it.

I- The objective of the class is to re-create the following caricature



- 1) Each section of the drawing is an equation.
- 2) Examples of some of the equations
  - a. This equation is the face of the bear

$$(x - a)^2 + (y - b)^2 = 4.2$$

- b. This equation is the right ear

$$(x - 1.3)^2 + (y - 0.6)^2 = 1.6 \left\{ x^2 + (y - 0.000001)^2 \geq 4 \right\}$$

- c. These equations are part of the cloud

$$\left| \begin{array}{l} y = 19 + \sqrt{2.3^2 - (x - 1.2)^2} \quad \{x \geq -1\} \\ y = -0.25(x + 2.7)^2 + 21 \quad \{-4.5 \leq x \leq -0.5\} \end{array} \right.$$