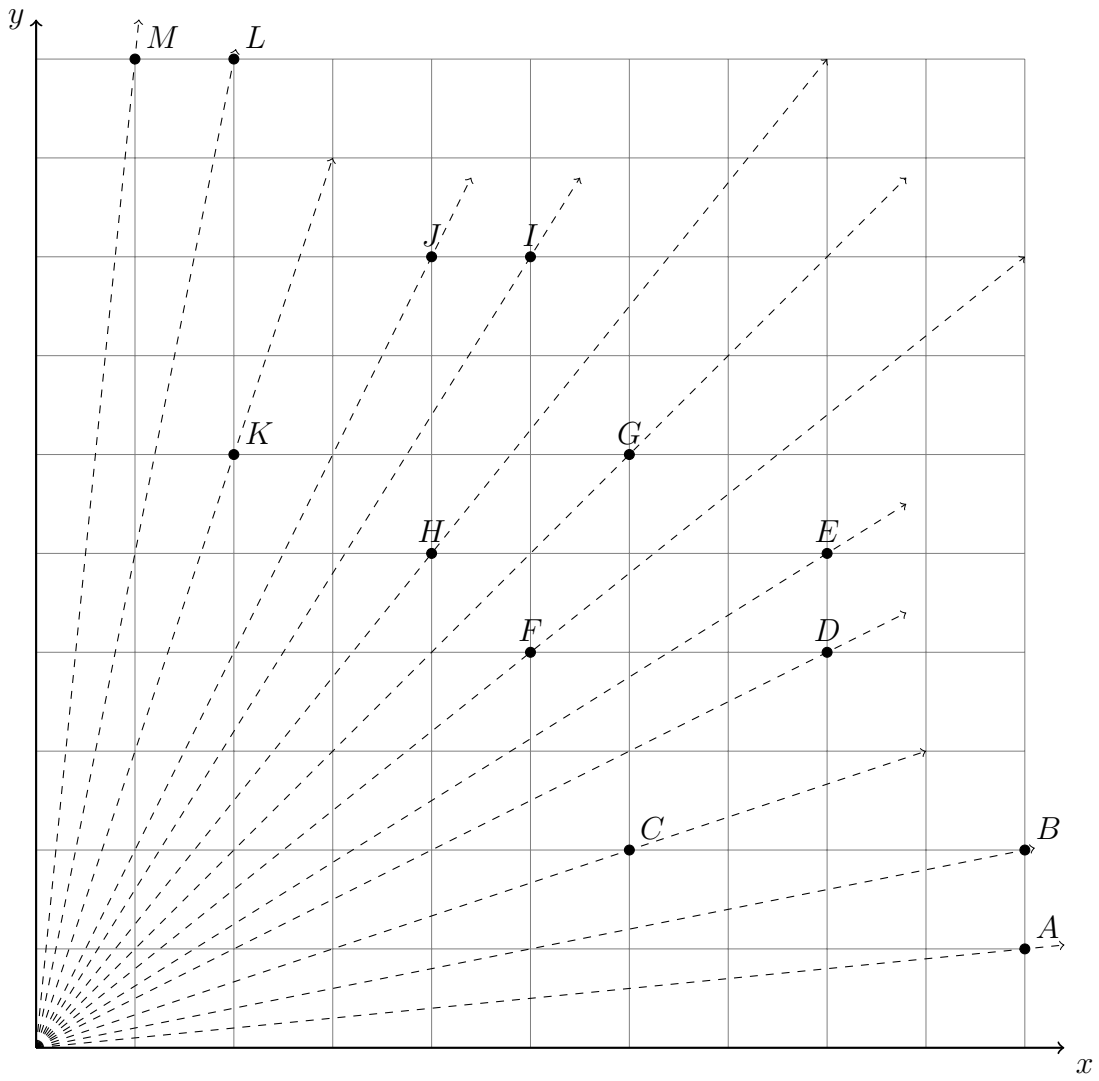
6.8 Do Now: Euclid's Garden, mapping angles to slope

1. On a separate sheet of paper, make a table listing each point in the graph below:
   (a) Write down the x and y coordinates of the point;
   (b) Calculate the slope, "rise over run", as a decimal to the nearest thousandth;
   (c) Measure the angle, θ, made with the origin and x-axis, as shown for point A.



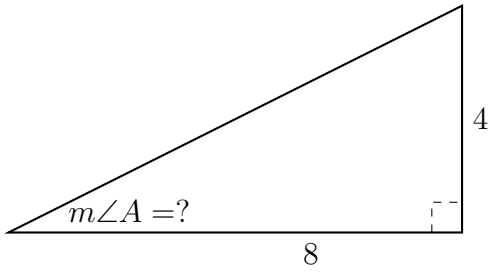
Use your table of slopes and angles to answer the following questions.

2. A line intersects the x-axis at the origin at an angle of $18°$. What is it's slope?

3. A line intersects the x-axis at the origin at an angle of $63°$. What is it's slope?

4. A line through the origin has a slope of 1. What angle does it make with the x-origin?

5. Right $\triangle ABC$ has a base of length 8 and height 4. What is the measure of the vertex $\angle A$?



6. Right $\triangle DEF$ has a base of length 4 and height x. The measure of the vertex $\angle D = 51°$. Find the height, x.