

The vertex of an equilateral triangle is $(2, 3)$ and the equation of the opposite side is $x + y = 2$. Then the other two sides are $y - 3 = (2 \pm \sqrt{3})(x - 2)$.

$$y = -x + 2, m = -1$$

if m is the slope of a line which makes an angles 60° with the above line, then:

$$\tan 60 = \left| \frac{m - m}{1 + mm} \right|$$

$$\sqrt{3} = \left| \frac{m + 1}{1 - m} \right|$$

$$3(1 - m)^2 = (m + 1)^2$$

$$2m^2 - 8m + 2 = 0$$

$$m = 2 \pm \sqrt{3}$$

The equation of the two sides passing through (2, 3) are

$$y - 3 = (2 + \sqrt{3})(x - 2)$$

$$\& y - 3 = (2 - \sqrt{3})(x - 2)$$