

# Blake Q's #7

June 2, 2020

These questions are all related to each other and build up. If you do not understand a section look at the solutions.

## Question 1

Find the hypotenuse of a triangle with side lengths of 6 and 8.

*Hint:  $a = 6$  and  $b = 8$ .*

## Question 2

Find the distance between points  $(-0.11, 3.23)$  and  $(7.89, -2.77)$

*Hint: Draw a diagram.*

## Question 3

Find the hypotenuse of a triangle with side lengths of  $\sin(\theta)$  and  $\cos(\theta)$ .

What is the hypotenuse when  $\theta = 30$  degrees?

What about when  $\theta = 43.2$  degrees?

What about when  $\theta = 3\pi$  degrees?

Is there a pattern?