

NAME: \_\_\_\_\_ Score \_\_\_\_\_ /10

Please **print** your name

1. Fill in the blanks

A function consists of three things

- A set called the \_\_\_\_\_
- A set called the \_\_\_\_\_

A \_\_\_\_\_ which associates \_\_\_\_\_ element of the domain with a \_\_\_\_\_ element of the range.

2. A zero of a function  $f$  is a \_\_\_\_\_ element  $k$  for which \_\_\_\_\_.3. What is the period of  $3\sin(5x + \frac{\pi}{3})$ ?4. Determine whether  $(2, 3)$  is on the graph of the function whose rule is  $f(x) = \frac{2x - 1}{4 - 3x}$ .

Neatly show your work. No work – No credit. End your work with a clearly stated conclusion.

5. The equation  $\sin \beta = \frac{\tan \beta \cot \beta}{\csc \beta}$  is an identity. What is the solution set for this equation?

Hint: This question should take you about 2 seconds.