

NAME: _____ Score _____/10

1. Fill in the blanks.

Problem: Consider the function whose rule is given by the equation $f(x) = (x - \sqrt{3})(x + \pi)$

- What kind of function is f ? **A Quadratic function.**
- What is the shape of its graph? **It is a parabola which opens up.**
- What are the x-intercepts of its graph? **The x-intercepts are $\sqrt{3}$ and $-\pi$.**
- For what values of x is $f(x) > 0$? Write your answer in interval notation. **$(-\infty, -\pi) \cup (\sqrt{3}, \infty)$**
- For what values of x is $f(x) < 0$? Write your answer in interval notation. **$(-\pi, \sqrt{3})$**