

NAME: _____ Score _____/10

Please **print** your name

SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION

(2 pt.) If kmt is the name of a function and $3 + 2x$ is in the domain of kmt , then $kmt(3 + 2x)$ is **the unique range element associated with the domain element $3 + 2x$ by the function kmt .**

1. (1 pt.) A function whose rule can be written as $f(x) = 3x - 7$ is a **linear** function.
2. (1 pt.) **T** F The graph of a quadratic function is a parabola.
3. (1 pt.) **T** **F** A zero of a function is in the range of the function.
4. (1 pt.) **T** **F** Multiplication of functions is defined by $f \circ q(x) = f(q(x))$.
5. (2 pts.) 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.

$$f(2) = \frac{2(2) - 1}{4 - 3(2)} = \frac{3}{-2} \neq 3$$

Because $f(2) \neq 3$, the point $(2, 3)$ is not on the graph of f

6. (2 pts.) A function is displayed at the right.
What are the zeros of this function?

The zeros are 4 and 8 because each of them is associated with the number 0 in the range.

