

NAME: _____ Score _____/10

Please **print** your name

1. T F If f is a function whose domain is the Real Numbers then $f(3)$ is a range element.
2. T F If f is a function whose domain is the Real Numbers then $f(3)$ is a domain element.
3. T F The point $(3, 7)$ is on the graph of a function h if and only if $h(7) = 3$.
4. T F If f is a fifth degree polynomial function then its graph crosses the x -axis five times.
5. T F If m is a real zero of a function then $(m, 0)$ is an x -intercept of its graph.
6. T F If f is a polynomial function with integer coefficients and $\frac{p}{q}$ is a zero of f , then p is a divisor of the constant term.
7. T F If f is a polynomial function with integer coefficients and $\frac{p}{q}$ is a zero of f , then p is a divisor of the leading coefficient.
8. T F The graph of a polynomial function is a continuous smooth curve with no gaps or sharp corners.
9. T F Consider the function whose rule is $f(x) = x^6 + x^5 - 5x^3 + 6$. The possible rational zeros of f are $\pm 1, \pm 2, \pm 3, \pm 6$
10. T F Consider the function whose rule is $f(x) = 6x^6 + x^5 - 5x^3 + 1$. The possible rational zeros of f are $\pm 1, \pm 2, \pm 3, \pm 6$