Meramec College Algebra Quiz 7 Fall 2007

NAME: _____Score_____/10

Please **print** your name

1. T F If f is a rational function whose denominator is x – 5, then its domain is all real numbers except -5.
2. T F If the zeros of the denominator of a rational function f are 3, 5, and 7 and if the zeros of the numerator of that same rational function f are 2 and 5, then the zeros of f are 2, 3, 5, and 7.
3. T F If the zeros of the denominator of a rational function f are 3, 5, and 7 and if the zeros of the numerator of that same rational function f are 2 and 5, then the graph of f has vertical asymptotes x = 3, x = 5, and x = 7.
4. T F If the zeros of the denominator of a rational function f are 3, 5, and 7 and if the zeros of the numerator of that same rational function f are 2 and 5, then the graph of f has vertical asymptotes x = 2 and x = 5.
5. T F If t is a real zero of a function f, then the range element associated with t is 0.
6. T F The graph of a function is a continuous smooth curve with no gaps or sharp corners.
7. T F The graph of a polynomial function is a continuous smooth curve with no gaps or sharp corners.
8. T F The graph of a rational 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 ± 1
10. T F Consider the function whose rule is $f(x) = \dfrac{x^6 + x^5 - 5x^3 + 1}{x^3 + 4x - 1}$. The possible rational zeros of f are ± 1