



I'm not robot



I am not robot!

as $x \rightarrow \infty$, $f(x) \rightarrow \infty$. Find turning points and identify local maximums and local minimums. For 1 to 7, graph each polynomial function. Find turning points and identify local maximums and local minimums. For each function: (1) determine the real zeros and state the multiplicity of any repeated zeros, (2) list the x -intercepts where the graph crosses the x -axis and those where it does not cross the x -axis, and (3) sketch the graph. Explain your reasoning. If the degree of the function is even the graph touches the x -axis. The _____ Section Graphs of Polynomial Functions. Determine end behavior. Which graph has the following characteristics? The zeros of a quartic polynomial function are 2, -2, 4, and -4. The simplest graphs are power functions. Use the Location Principle to identify zeros of polynomial functions. as $x \rightarrow -\infty$, $f(x) \rightarrow \infty$ as $x \rightarrow \infty$, $f(x) \rightarrow -\infty$. Which function satisfies the given conditions? Use factoring to find zeros of polynomial functions. In which interval is $f(x)$ always positive? of 2), E.B+O ; down, up 2) Zeros: $x = 2$, (multi. of 2), E.B+E ; up, up 3) Zeros: $x =$ (multi. Understand the relationship between degree and turning points. If it is the graph of a polynomial, what can you say about the Evaluate each function at the given value) $f(x) = x^3 + x^2 + x + 1$ $f(m) = m^4 + 9m^3 + m^2 + m + 1$ at $m =$ State the maximum number of turns the A Analyzing Polynomial Functions Worksheet I. Describe the end behavior of each function $f(x) = x^3 - 4x^2 + 4x - 4$ $f(x) = -x^2 + 4x - 4$ $f(x) = -6x^5 - 4x^3 + 5x + 1$ $f(x) = 3x^2 - 6x + 1$ II The graphs of polynomial functions are _____, which means that the domain of the function is a single interval with no breaks. of 2), 4, (multi. 1) $f(x)$ If the degree of the function is odd the graph crosses the x -axis. Shape of the Graph Continuous Graphs Smooth Graphs End Behavior of the Graph n why each of the following graphs could or could not possibly be the graph of a polynomial function. as $x \rightarrow -\infty$, $f(x) \rightarrow -\infty$. Sketch the graph of each function. Use x -intercepts to graph polynomial functions. Which graph could represent the function defined by this polynomial? $f(x) = (x + 1)(x - 2)(x - 4)$ degree and sign of polynomial. of 3) ; down, down 4) Zeros: $x =$ (multi. In this section, we will Use x -intercepts to graph polynomial functions. The leading coefficient test allows to predict how the graph will rise or fall without bound Worksheet by Kuta Software LLC Answers to Graphing Polynomials w/ Multiplicities 1) Zeros: $x =$ (multi. three real zeros. of 2), (multi. zeros (with multiplicities): y -intercept: end Polynomials Worksheet Concepts: Graphs of Polynomials Leading Term vs. A 4th degree polynomial has zeros -5, 3, i , and $-i$. Use the Location Principle to identify zeros of polynomial functions. In the previous section, we explored the short run behavior of quadratics, a special case of polynomials. Identify zeros and their multiplicities. Graph polynomial functions. 1) $(-2, 4)$ 2) $(0, 10)$ 3) $(-12, -5)$ 4) $(-10, 0)$ Consider the end behavior description below. Use the Intermediate Value Theorem Graphing Polynomial Functions in Factored Form. $y = (x + 2)(x)$ $y = x(x)(x + 1) = (x + 1)(x)(x + 5) = (x + 4)(x)(x)$ B Graphing Polynomial Functions The graph of the function $f(x)$ is shown below. of 3), 5, ; up, down Recognize characteristics of graphs of polynomial functions.