

Problem 1 Consider the function $f(x) = -x^4 + x^3 + 2x + 16$. How many terms in $f(x)$ are **not** monomials? 0.

Feedback(attempt): Monomials are the terms that look like ax^n for some real number a and n needs to be a whole number. In other words, terms that look like (number) $\times x^n$ (where n can be 0, 1, 2, etc) are monomials. Notice that, if $n = 0$ then this will actually just look like a constant (since $x^0 = 1$), so even constants count as monomials.

Problem 2 Consider the function $f(x) = -5x^5 - 4x - 4\sqrt{x} - 21$. How many terms in $f(x)$ are **not** monomials? 1.

Feedback(attempt): Monomials are the terms that look like ax^n for some real number a and n needs to be a whole number. In other words, terms that look like (number) $\times x^n$ (where n can be 0, 1, 2, etc) are monomials. Notice that, if $n = 0$ then this will actually just look like a constant (since $x^0 = 1$), so even constants count as monomials.

Problem 3 Consider the function $f(x) = -4\sqrt{x} + \frac{1}{x^2} + 4e^x + 6$. How many terms in $f(x)$ are **not** monomials? 3.

Feedback(attempt): Monomials are the terms that look like ax^n for some real number a and n needs to be a whole number. In other words, terms that look like (number) $\times x^n$ (where n can be 0, 1, 2, etc) are monomials. Notice that, if $n = 0$ then this will actually just look like a constant (since $x^0 = 1$), so even constants count as monomials.