Horizontal asymptotes of rational functions

Rational functions are of the form:

$$f(x) = \frac{ax^n + bx^{n-1} + ...}{cx^m + dx^{m-1} + ...}$$

To get the horizontal asymptotes, you first take the **dominant term** It's the leading term of the polynomial in the denominator, *without the coefficient*. Here x^m.

Then, you divide every term in both numerator and denominator, and evaluate at $x \to \infty$.