# High School Algebra Playlist: Rewriting Polynomials

Aligns with CCSS.Math.Content.HSA.APR.D.6: Rewrite simple rational expressions in different forms; write $\dfrac{a(x)}{b(x)}$ in the form $q(x) + \dfrac{r(x)}{b(x)}$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.

## Related Standards

- CCSS.Math.Content.HSA.APR.B.2: Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number $a$, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.

## Objectives

In this module, you will learn and practice the following skills:

- rewrite rational expressions

- divide polynomial expressions

Let's get started!

## Connections

- https://openstaxcollege.org/textbooks/algebra-and-trigonometry; section 5.4, about page 550