**Expressions Related to the Roots of Polynomials**

**Sums of squares**:

* Quadratic:
* Cubic:
* Quartic:

**Sums of cubes**:

* Quadratic:
* Cubic:

**Reciprocals:**

* Quadratic:
* Cubic:
* Quartic:

**Products of Powers**

* Quadratic:
* Cubic:
* Quartic:

**Example**

**The three roots of a cubic equation are and . Given that , and , find the value of**

Ex 4D pg 63-64