

Distinguish Between Correct & Incorrect

1. Determine if the problem was completed correctly or incorrectly.
 - a. Determine the vertex of the following equation: $y = x^2 + 10x - 21$
(This problem will be solved correctly and completely)

- b. Simplify the following expression: $\frac{x^4 - 6x^3 + 4x^2 + 11x + 2}{x - 3}$
(This problem will be solved incorrectly)

- c. Write the equation of the polynomial that has a degree of 5, a bounce point at $x = 3$, a zero at $x = -1$ and $x = 4i$ which passes through $(-2, -125)$.
(This problem will be solved incorrectly)

- d. Simplify the following expression: $\frac{4}{3-i} - \frac{3}{1+i}$
(This problem will be solved correctly and completely)

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Standard: N.CN.1 - Perform arithmetic operations with complex numbers.

N.CN.8 - Extend polynomial identities to the complex numbers. *For example, rewrite $x^2 + 4$ as $(x + 2i)(x - 2i)$.*

A.APR.6 - Rewrite simple rational expressions in different forms; write $\frac{a(x)}{b(x)}$ in the form $q(x) + \frac{r(x)}{b(x)}$, 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.

Students will be able to effectively critique work.

Task: Students will be able to identify if a problem was completed correctly or incorrectly.

Criteria:

- Identify if the given problem was done correctly

Rubric: (for each problem)

Criterion	0 points	1 point
Identify if the given problem was done correctly	Not identified correctly	Identified correctly