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)
Distinguish Between Correct & Incorrect

**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)**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>0 points</th>
<th>1 point</th>
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<tbody>
<tr>
<td>Identify if the given problem was done correctly</td>
<td>Not identified correctly</td>
<td>Identified correctly</td>
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