

Quiz 1A Rubric/Solution

Name:

UAlbany Email:

Closed book/notes. No calculators allowed. Show all your work.

1. Simplify and rewrite without negative exponents:

$$\frac{(5a^2b^{-2})^{-3} (a^{-5}b^2)^{-1}}{a^{-2}b^8}$$

- (+2 Points) Distributed the -3 exponent without errors: $(5a^2b^{-2})^{-3} = 5^{-3}a^{-6}b^6$
- (+2 Points) Distributed the -1 exponent without errors: $(a^{-5}b^2)^{-1} = a^5b^{-2}$
- (+2 Points) Combined all like terms in the numerator without errors:

$$5^{-3}a^{-6}b^6a^5b^{-2} = 5^{-3}a^{-1}b^4$$

- (+2 Points) Combined all like terms from the numerator and denominator without errors:

$$\frac{5^{-3}a^{-1}b^4}{a^{-2}b^8} = 5^{-3}ab^{-4}$$

- (+2 Point) Expressed final result without negative exponents:

$$5^{-3}ab^{-4} = \frac{a}{5^3b^4}$$

Grade: /10