

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Algebra I

Directions: Simplify each expression without zero or negative exponents.

1.  $(x^5)^4 =$

2.  $(x^6)^2 =$

3.  $(xy^2)^4 =$

4.  $(x^3y^2)^3 =$

5.  $(x^9y^8)^0 =$

6.  $(x^2y^5)^0 =$

7.  $(x^{-2})^{-3} =$

8.  $(x^5)(y^2)^4 =$

9.  $(x^8)^3(y^2)^5 =$

10.  $(9x^2)^0 =$

11.  $9x^0 =$

12.  $(x^b)(x^r) =$

13.  $(x^b)^r$

14.  $(x^{-9})^{-2} =$

15.  $(x^{-7})^{-3}$

16.  $(x^{-4}y^{-6})^{-7} =$

17.  $x^0b^2 =$

18.  $(5x)^a \bullet (5x)^b =$

19.  $x^j \bullet x =$

20.  $x^{2n} \bullet x^{3n} =$

Directions: Simplify each expression without zero or negative exponents.

21.  $2^{-3} =$

22.  $x^{-5} =$

23.  $x^4y^{-2} =$

24.  $x^{-6}y^4$

25.  $8x^{-3} =$

26.  $(2x)^{-3} =$

27.  $\frac{1}{x^{-6}} =$

28.  $\frac{1}{x^{-8}} =$

29.  $\frac{1}{4x^{-6}}$

30.  $(x^{-4})^2(x^{-3})^3 =$

31.  $(xy)^{-2} \bullet (xy)^{-2} =$

32.  $w^{-3}x^{-2} =$