

Name: .....

Date: ..... Score: .....

## Properties of Exponents Worksheet

Simplify

1  $(x^4)^2$

2  $x^{-8}$

3  $(a^2)^0$

4  $2a^2 \cdot 3b$

5  $(4x^2)^{-4}$

6  $(4a^4)^2$

7  $(4ab)^{-1}$

8  $(a^2b^{-1})^2$

9  $(6ab)^2$

10  $\frac{18a^3}{4a}$

11  $\frac{2a^3}{a^2}$

12  $\left(\frac{3a^2b^7}{a}\right)^5$

13  $\frac{a^{-1}}{a^{-8}}$

14  $\frac{x^5y^4}{xy^3}$

15  $-(9a)^0$

16  $\frac{1}{2^{-6}}$

17  $a^8 \cdot a^{-7}$

18  $(a^2b)^4$

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## Properties of Exponents Worksheet

### Answers

1  $(x^4)^2$

$x^8$

2  $x^{-8}$

$\frac{1}{x^8}$

3  $(a^2)^0$

1

4  $2a^2 \cdot 3b$

$6a^2b$

5  $(4x^2)^{-4}$

$\frac{1}{256x^8}$

6  $(4a^4)^2$

$16a^8$

7  $(4ab)^{-1}$

$\frac{1}{4ab}$

8  $(a^2b^{-1})^2$

$\frac{a^4}{b^2}$

9  $(6ab)^2$

$36a^2b^2$

10  $\frac{18a^3}{4a}$

$\frac{9a^2}{2}$

11  $\frac{2a^3}{a^2}$

$2a$

12  $\left(\frac{3a^2b^7}{a}\right)^5$

$243a^5b^{35}$

13  $\frac{a^{-1}}{a^{-8}}$

$a^7$

14  $\frac{x^5y^4}{xy^3}$

$x^4y$

15  $-(9a)^0$

-1

16  $\frac{1}{2^{-6}}$

64

17  $a^8 \cdot a^{-7}$

a

18  $(a^2b)^4$

$a^8b^4$