

## Exponents - Practice

**Simplify the following problems. Use positive exponents**

1.  $x^5x^7 =$       6.  $x^{-4}y^{-7} =$

2.  $x^{\frac{10}{6}}y^{\frac{12}{7}}$       7.  $(2x^2y^3)^{-2}$   
 $x$

3.  $(x^{-2}y^{-3})^{-2}$     8.  $36x^6y^{12}$  \_\_\_\_\_

$6x^{11}y^6$

4.  $x^{\frac{x}{-32}}z^{\frac{y}{-52}}$     9. \_\_\_\_\_<sup>11 6</sup>

$36x^y$

$16x^{-6}y^{12}$

5.  $x^5x^{-7} =$       10.  $(x^2y^2)^3(x^{-2}y^2)^{-4}$

**Solutions:**

$1. x^{12}$

$2. y^{-5}$

$3. x^4 x^6$

$4. x^{17}$

$5. y x^{75}$

$6. x^{\frac{1}{4}} y^7$

$7. 4x^4 y^{\frac{1}{6}}$

$8. 6x^4 y^{\frac{1}{6}}$

$9x^{16}$

$9. 4y^{\frac{x}{10}}$

$10. \text{---}y^2$