

## 16.3 – Negative Exponents

Evaluate the following.

1. $\left(\frac{3}{5}\right)^{-2} =$	2. $6^{-3} =$
3. $\left(\frac{1}{2}\right)^{-4} \left(\frac{1}{2}\right)^4 =$	4. $(2^{-2})^3 =$

Simplify the following.

5. $x^4 \cdot x^{-2} =$	6. $(x^{-3})^5 =$
7. $(2xy^3)^{-2} =$	8. $(x^2y^2)^{-1} =$
9. $4x^{-1}y =$	10. $xy^{-2} \cdot x =$

$$11. -2x^{-2}y^0 =$$

$$12. \frac{x^3}{x^{-1}} =$$

$$13. \frac{x^{-3}y}{xy^{-2}} =$$

$$14. \frac{6x}{5y} \cdot \frac{y^2x^{-2}}{x^3} =$$

Use the laws of exponents to solve the following equations.

$$15. \frac{7^x}{7^{-5}} = 7^8$$

$$16. \left(\frac{4^x}{4^3}\right)^2 = 4^{-10}$$

$$17. \left(\frac{4^6}{4^x}\right)^{-3} = 4^6$$

$$18. \frac{7^3}{7^{-x}} = 7^6$$