

A1.2 Algebra Homework

1. (1 pts)

Match the definition to the correct rule of exponents.

- A. _____ one
- B. _____ repeated multiplication
- C. _____ repeated division

- A. _____ add the exponents
- B. _____ subtract the exponents
- C. _____ multiply the exponents

2. (1 pts)

Simplify each multiplication problem and write the answer using positive exponents

$$x^4 x^0 = \underline{\hspace{2cm}}$$

$$2y^{-9} \cdot 2y^3 = \underline{\hspace{2cm}}$$

$$-2y^{-9} \cdot 2y^3 = \underline{\hspace{2cm}}$$

$$-2y^{-9} \cdot -2y^3 = \underline{\hspace{2cm}}$$

3. (1 pts)

Simplify and write the answer with positive exponents only.

$$\frac{30x^{-6}}{2} = \underline{\hspace{2cm}}$$

$$\frac{2y^3}{30y^6} = \underline{\hspace{2cm}}$$

$$\frac{8z^2}{z^2} = \underline{\hspace{2cm}}$$

4. (1 pts)

Simplify each problem.

$$(x^4)^{-7} = \underline{\hspace{2cm}}$$

$$(6y^3)^{-2} = \underline{\hspace{2cm}}$$

$$6(z^3)^{-2} = \underline{\hspace{2cm}}$$

5. (1 pts)

Simplify completely. Write the answer with positive exponents.

$$(3x^2y^5)(4x^5y^{-4}) = \underline{\hspace{2cm}}$$

6. (1 pts)

Simplify completely. Write the answer with positive exponents.

$$(4x^{-5}y^7)(4x^2y^{-4}) = \underline{\hspace{2cm}}$$

7. (1 pts)

Simplify and write the answer with positive exponents only.

$$\frac{(10x^{-2})(6x^{14})}{5x^4} = \underline{\hspace{2cm}}$$

8. (1 pts)

Simplify and write the answer with positive exponents only.

$$\frac{(6x^4)^{-2}}{10x^2} = \underline{\hspace{2cm}}$$

9. (1 pts)

Simplify and write the answer with positive exponents only.

$$\frac{(3x^{-5}y^4)^2}{3x^2y^2} = \underline{\hspace{2cm}}$$

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3. (1 pts)

Simplify and write the answer with positive exponents only.

$$(30x^{-6})/2 = \underline{\hspace{2cm}}$$

$$(2y^3)/(30y^6) = \underline{\hspace{2cm}}$$

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