

**CP Algebra 2**  
**Fractions as Exponents**

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

$$2^5 =$$

$$(2^5)^2 =$$

$$(2^5)^3 =$$

$$(2^5)^{\frac{1}{5}} =$$

$$(2^5)^{\frac{2}{5}} =$$

$$(2^5)^{\frac{3}{5}} =$$

$$216^{\frac{4}{3}} =$$

**Fractional Exponent Rule:**

[ EX 1 ]       $144^{\frac{3}{2}}$

[ EX 2 ]       $216^{\frac{2}{3}}$

$$[\text{EX 3}] \quad 36^{\frac{1}{2}}$$

$$[\text{EX 4}] \quad 100^{\frac{5}{2}}$$

$$[\text{EX 5}] \quad 27^{\frac{4}{3}}$$

$$[\text{EX 6}] \quad 49^{\frac{3}{2}}$$

$$[\text{EX 7}] \quad 4^{\frac{1}{2}} + 9^{\frac{1}{2}}$$

$$[\text{EX 8}] \quad 4^{\frac{1}{2}} + 9^{-\frac{1}{2}}$$

$$[\text{EX 9}] \quad 4^{-\frac{1}{2}} + 9^{\frac{1}{2}}$$

$$[\text{EX 10}] \quad 4^{-\frac{1}{2}} + 9^{-\frac{1}{2}}$$

$$[\text{EX 11}] \quad \sqrt{\left[\left(\frac{1}{4}\right)^{-\frac{1}{2}} + 3\right]^2 + 36 \div 3 \cdot 2 + 5}$$