

## TOPIC: RATIONAL EXPONENTS

- You can re-write radical expressions as terms with exponents that are \_\_\_\_\_.

### EXPONENT RULES

$$(a^m)^n = a^{m \cdot n}$$

Radicals

$$(\sqrt{5})^2$$

Rational Exponents

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

$$\sqrt{5} \quad \underline{\quad} \quad 5^{\frac{1}{2}}$$

$$\boxed{{}^n\sqrt{a^m} = a^{\frac{m}{n}}}$$

over

EXAMPLE: Rewrite radicals as exponents or exponents as radicals.

(A)

$$13^{\frac{1}{3}}$$

(B)

$$\sqrt{x}$$

(C)

$$\sqrt[5]{y^2}$$