

$$x^a \cdot x^b$$

Product of Powers

2.1

$$x^{a+b}$$

Power with a sum as an exponent

2.2

$$(x^a)^b$$

Power of a Power

2.3

$$x^{ab}$$

Power with a product as an exponent

2.4

$$\frac{x^a}{x^b}$$

Quotient of Powers

2.5

$$x^{a-b}$$

Power with a difference as an exponent

2.6

$$x^{-a}$$

Power with Negative Exponent

2.7

$$\frac{1}{x^a}$$

Rational Expression with
power in denominator

2.8

$$\frac{1}{x^{-b}}$$

Rational Expression with
power in denominator with a
negative exponent

2.9

$$x^b$$

Power

2.10

$$\frac{a}{x^b}$$

Power with rational exponent

2.11

$$b\sqrt{x^a}$$

Radical Expression with power in the radicand

2.12

$$\left(\frac{x^a}{x^b}\right)^c$$

Power of a Quotient of Powers

2.13

$$\frac{x^{ac}}{x^{bc}}$$

Quotient of Powers

2.14

$$x^{ac-bc}$$

Power with a difference as an exponent

2.15

$$x^{(a-b)c}$$

Power with a product involving a difference as an exponent

2.16

$$(x^a y^b)^c$$

Power of a Product of Powers

2.17

$$x^a y^b$$

Product of Powers

2.18