Math 10

Section 4.0

Remember This?

Focus:

1. To be able to determine the square root of a perfect square.
2. To be able to determine the cube root of a perfect cube
3. To be able to use exponent laws.

Curricular Competencies:

A2: I can explore, analyze and apply mathematical ideas

## Language

eg. $8^3$

| Base | Exponent | Power |
|---|---|---|
| 8 | 3 | $8^3 \rightarrow 8 \cdot 8 \cdot 8$ |

## Squares and Square Roots

$4^2$ $4 \cdot 4 = 16$

$\sqrt{49} = 7$

## Cubes and Cube Roots

$3^3 \rightarrow 3 \cdot 3 \cdot 3 = 27$

$\sqrt[3]{729} = 9$

## Sneaky Exponents

$-4^3$ $-1 \cdot 4 \cdot 4 \cdot 4 = -64$

$(-4)^3$ $-4 \cdot -4 \cdot -4 = -64$

$(-4^3)$ $-1 \cdot 4 \cdot 4 \cdot 4 = -64$

Try These …

$(x^5)(x^2) = x^7$

$x^5 \div x^2$ or $\frac{x^5}{x^2} = x^3$

$(x^5)^2 = x^{10}$

$\left(\frac{x^5}{y^2}\right)^3 = \frac{x^{15}}{y^6}$

$(3x^2)^2 = 9x^4$

Prime Numbers ~ can only be divided by itself + 1

1, 2, 3, 5, 7, 11 . . .

assignment: Chapter 4 Warm Up worksheet