MAT0028 ~ Lesson 24

Work the following examples as you listen to the recorded lecture.

Exponents

2^3 $(-3)^6$ $5x^2$ $(5x)^2$

Example 1: $(-3)^2$

Example 2: -3^2

Example 3: $(-\frac{1}{9})^2$

Example 4: $(-4) \cdot 3^3$

Multiply the same base by adding exponents:

Example 5: $(-5)^7 \cdot (-5)^6$

Example 6: $(-2z^3)(-2z^2)$

Example 7: $(a^2b)(a^{13}b^{17})$

Example 8: $(12x^2)(-x^6)(x^4)$

Raise an exponent to a power by multiplying exponents:

Example 9: $(x^7)^5$

Example 10: $(\frac{xy}{7})^2$

Divide the same base by subtracting exponents:

Example 11: $\frac{y^{10}}{y^9}$

Example 12: $\frac{x^8y^6}{xy^5}$

Anything with an exponent of zero equals 1.

Example 13: 23^0

Example 14: $-2x^0$