

MAT0028 ~ Lesson 25

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

Negative Exponents and Scientific Notation

Example 1:

$$4^{-3}$$

Example 2:

$$(-3)^{-4}$$

Example 3:

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

Example 4:

$$7x^{-3}$$

Example 5: $4^{-1} + 4^{-2}$

Example 6: $\frac{p^{-5}}{q^{-4}}$

Example 7: $\frac{-1}{p^{-4}}$

Example 8: $\frac{p^2 p}{p^{-1}}$

Example 9: $\frac{(x^2)^8 x}{x^9}$

Example 10: $(x^5 y^3)^{-3}$

Example 11: $\frac{(y^4)^2}{y^{12}}$

Example 12: $(-2x^3 y^{-4})(3x^{-1} y)$

Example 13: $\left(\frac{x^{-2} y^4}{x^3 y^7}\right)^2$

Write in scientific notation:

Example 14: 78,000

Example 15: 0.000000017

Write in regular notation:

Example 16: 1.16×10^6

Example 17: 6.35×10^{-4}