

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}**