

## Beginning Algebra ~ 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:  $\frac{p^2p}{p^{-1}}$

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

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

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

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

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

*Write in scientific notation:*

Example 14: 78,000

Example 15: 0.000000017

*Write in regular notation:*

Example 16:  $1.16 \times 10^6$

Example 17:  $6.35 \times 10^{-4}$