## MAT0028 ~ Lesson 27

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

## Multiplying Polynomials

## Remember:

Multiply by adding exponents with the same base.

| Example 1: | Example 2: | Example 3: |
| :--- | :--- | :--- |
| $9 t^{6}\left(-3 t^{5}\right)$ | $\left(-5.2 x^{4}\right)\left(3 x^{3}\right)$ | $\left(-\frac{3}{4} y^{7}\right)\left(\frac{1}{7} y^{4}\right)$ |

Example 4: $(x)\left(5 x^{4}\right)\left(-6 x^{7}\right) \quad$ Example 5: $2 x(6 x+3)$

Example 6: $-4 b^{2}\left(3 b^{3}-12 b^{2}-6\right)$

Example 7: $(x+2)(x+9)$
Example 8: $(4 x-3)(3 x-5)$

Example 9: $(x+5)\left(x^{3}-3 x+4\right)$

Example 10: $(x+2)^{3}$

Example 11: $\left(x^{2}+5 x-7\right)\left(2 x^{2}-7 x-9\right)$

