Proficiency Check 6.2 –Multiply and Divide Polynomials

Perform the following operations and write the answer in Descending Order.

Emerging	Emerging
1. $3x(x+4)$ $3x^2+12x$	2. $4x^2y(2x-5)$ $8x^3y-20x^2y$
Proficient	**Proficient**
3. $\frac{3x(4x^2-12x-8)}{2x}$ $\frac{12x^3-36x^2-24x}{2x}$ $\frac{12x^3}{2x}-\frac{36x^2}{2x}-\frac{24x}{2x}$ $4x^2-18x-12$	4. $4rs^2t(2r+5t-6s)$ $8r^2s^2t+20rs^2t^2-24rs^3t$ all degree 5 so alphabetical $8r^2s^2t+20rs^2t^2-24rs^3t$
Extending	
5. $\frac{2x^2(4-5x+7x^2)}{2x}-\frac{4x(6x-9x^3+15x^2)}{3x}$ Each term divides by 2x $\frac{8x^2-10x^3+14x^4}{2x}-\left[\frac{24x^2-36x^4+60x^3}{3x}\right]$ Each term divides by 3x $4x-5x^2+7x^3-(8x-12x^3+20x^2)$ $4x-5x^2+7x^3-8x+12x^3-20x^2$ $19x^3-25x^2-4x$	