### 2.2 Monomial Operations

- Adding/ Subtracting: Only like terms can be +/(simplified to a single term)
- Non like terms cannot be simplified to a single term
- When you $+/$ - terms, do it to the coefficients only.
- Multiplying/ Dividing: they don't have to be like terms.
- Multiplying: $\left(a x^{m}\right)\left(b x^{n}\right)=a b x^{m+n}$
- Dividing: $\quad \frac{a x^{m}}{b x^{n}}=\frac{a}{b} x^{m-n}$

Ex 1: Simplify the following monomials

$$
\begin{array}{cc}
3 x^{2}+4 x^{2} \\
5 x^{3} y^{2}-3 x^{3} y^{2} & \\
(2 a)(5 b) & \\
4(1.5 a) & \text { Adding } \\
\frac{12 x^{3} y^{4}}{6 x^{2} y^{2}} & \\
\text { Multiplying } \\
\text { Dividing }
\end{array}
$$

