|  |  |  |
| --- | --- | --- |
| $$a(b+d)$$ | Distribute single term on Binomial | $$ab+ad$$ |
| $$\left(a+b\right)(c+d)$$ | FOIL | $$ac+ad+bc +bd$$ |
| $$(a+b)^{2}$$ | Perfect squares | $$a^{2}+2ab+ b^{2}$$ |
| $$(a+b)^{3}$$ | Cubing a binomial | $$a^{3}+ 3a^{2}b+3ab^{2}+ b^{3}$$ |
| $$\left(a+b\right)(a-b)$$ | Difference of Squares | $$a^{2}-b^{2}$$ |

Binomial Expansion

Recognizing some patterns for certain types of expansion helps complete the task quicker and lessen the chance of an error being made.