Square's

1. $a^2 - b^2 = (a - b)(a + b)$

2. $a^2 + b^2 = (a - b)^2 + 2ab$

3. $(a+b)^2 = a^2 + 2ab + b^2$

4. $(a-b)^2 = a^2 - 2ab + b^2$

5. $(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2ac + 2bc$

6. $(a - b - c)^2 = a^2 + b^2 + c^2 - 2ab - 2ac + 2bc$

Cube's

1. $(a+b)^3 = a^3 + 3ab(a+b) + b^3$

2. $(a-b)^3 = a^3 + 3ab(a-b) - b^3$

3. $a^3-b^3 = (a-b)(a^2 +ab+ b^2)$

4. $a^3+b^3 = (a+b)(a^2 -ab+ b^2)$

4's and 5's

1. $(a+b)^4 = a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + b^4$

2. $(a-b)^4 = a^4 - 4a^3b + 6a^2b^2 - 4ab^3 + b^4$

3. $a^4 - b^4 = (a - b)(a + b)(a^2 + b^2)$

4. $a^5 - b^5 = (a - b)(a^4 + a^3b + a^2b^2 + ab^3 + b^4)$

Generally

AHH! HAVE THIS