

1. Expand.

$$(x+1)(x-1) = x^2 - \cancel{x} + \cancel{x} - 1x^0 = x^2 - 1$$

$$(x+1)(x+1) = x^2 + \underbrace{x+x}_{2x} + 1 = x^2 + 2x + 1$$

$$(x+1)^2 = (x+1)(x+1) = x^2 + \underbrace{x+x}_{2x} + 1 = x^2 + 2x + 1$$

$$(x-1)(x-1) = x^2 - \underbrace{x-x}_{-2x} + 1 = x^2 - 2x + 1$$

$$(x-1)^2 = (x-1)(x-1) \Rightarrow x^2 - 2x + 1$$

~~2.2~~  
 2.3  
 = 3.3

2. Factor.

$$x^2 - 1 = (x+1)(x-1)$$

$$x^2 + \underline{0x} - 1$$

$$x^2 + 2x + 1 = (x+1)(x+1) = (x+1)^2$$

$$x^2 - 2x + 1 = (x-1)(x-1) = (x-1)^2$$