Converting from Vertex to Standard Form

Steps: 1. Make a box to multiply for what is in parenthesis
2. Multiply the a
3. Add/Subtract the constant

1. $y = 2(x+4)^2 - 4$

2. $y = -3(x+2)^2 + 5$

3. $y = -(x-1)^2 - 1$

4. $y = 5(x+7)^2 - 12$

Converting from Standard to Vertex Form

Steps: 1. $x = \frac{-b}{2a}$
2. Substitute x into equation to get y
3 Write it in vertex form: $a(x-h)^2 + k$

1. $y = 2x^2 - 4x + 6$

2. $y = 3x^2 - 12x + 5$

3. $y = -x^2 - 2x - 1$

4. $y = 5x^2 - 12$