⑥ $\frac{2}{2}y = \frac{x^2}{2} + \frac{6x}{2} - \frac{4}{2}$

$$y = \frac{1}{2}x^2 + 3x - 2$$ (General)

① $y + 2 = \frac{1}{2}x^2 + 3x$

② $y + 2 = \frac{1}{2}(x^2 + 6x)$

③ $y + 2 + \frac{9}{2} = \frac{1}{2}(x^2 + 6x + 9)$ $\quad 6 \times \frac{1}{2} = (3)^2 = 9$

④ $y + \frac{4}{2} + \frac{9}{2} = \frac{1}{2}(x+3)^2$

$y + \frac{13}{2} = \frac{1}{2}(x+3)^2$

⑤ $y = \frac{1}{2}(x+3)^2 - \frac{13}{2}$ (Standard)

$y - \frac{13}{2} = \frac{1}{2}(x+3)^2$

$2(y - \frac{13}{2}) = (x+3)^2$ (Transformational)

⑥ $\frac{3y}{3} = \frac{6x^2}{3} + \frac{3}{3}x + \frac{1}{3}$

$$y = 2x^2 + \frac{1}{2}x + \frac{1}{3}$$

When dividing fractions you multiply by the reciprocal

① $y - \frac{1}{3} = 2x^2 + \frac{1}{2}x$

② $y - \frac{1}{3} = 2\left(x^2 + \frac{1}{4}x\right)$

③ $y - \frac{1}{3} + \frac{2}{64} = 2\left(x^2 + \frac{1}{4}x + \frac{1}{64}\right)$

$\frac{1}{4} \times \frac{1}{2} = \left(\frac{1}{8}\right)^2 = \left(\frac{1}{64}\right)$

④ $y - \frac{1}{3} + \frac{1}{32} = 2\left(x + \frac{1}{8}\right)^2$

$y - \frac{32}{96} + \frac{3}{96} = 2\left(x + \frac{1}{8}\right)^2$

$y - \frac{29}{96} = 2\left(x + \frac{1}{8}\right)^2$

⑤ $y = 2\left(x + \frac{1}{8}\right)^2 + \frac{29}{96}$

$\left(y - \frac{29}{96}\right) = 2\left(x + \frac{1}{8}\right)^2$

$\frac{1}{2}\left(y - \frac{29}{96}\right) = \left(x + \frac{1}{8}\right)^2$