

$$\textcircled{\text{ex 1}} \quad \frac{7}{y-3} = \frac{3}{y+1}$$
$$\rightarrow (y-3) = \frac{3}{y+1}$$

$$\text{LCD } (y-3)(y+1)$$

$$\frac{\cancel{(y-3)}(y+1)(7)}{\cancel{(y-3)}} = \frac{(3)(y-3)\cancel{(y+1)}}{\cancel{(y+1)}}$$

$$7y + 7 = 3y - 9$$
$$4y = -16$$
$$\textcircled{y = -4}$$

(ex2)

LCD $(y-2)(y+2)(3)$

$$\frac{(y+2)}{(y-2)} + \frac{(-2)}{(y+2)} = \frac{(-7)}{(3)}$$

$$\frac{\cancel{(y-2)}(y+2)(3)(y+2)}{\cancel{(y-2)}} + \frac{(-2)\cancel{(y-2)}(y+2)(3)}{\cancel{(y+2)}} = \frac{(-7)\cancel{(y-2)}(y+2)\cancel{(3)}}{\cancel{(3)}}$$

$$3(y^2+4y+4) + -6(y-2) = -7(y^2-4)$$

$$3y^2 + 12y + 12 - 6y + 12 = -7y^2 + 28$$

$$+7y^2 \quad -28 \quad +7y^2 - 28$$

$$10y^2 + 6y - 4 = 0$$

$$2(5y^2 + 3y - 2) = 0$$

$$2(5y - 2)(y + 1) = 0$$

$$5y - 2 = 0$$

$$5y = 2$$

$$y = \frac{2}{5}$$

$$y + 1 = 0$$

$$y = -1$$