

\* Add  $\frac{8a}{a^2-4} + \frac{a-2}{a+2}$

① find LCM of  $a^2-4$  and  $a+2$   
 $(a+2)(a-2)$

$$\text{LCM} = (a+2)(a-2)$$

②  $\frac{8a}{(a+2)(a-2)} + \frac{\cancel{(a-2)}(a-2)}{\cancel{(a+2)}(a-2)}$

$$\frac{8a}{(a+2)(a-2)} + \frac{a^2-2a-2a+4}{(a+2)(a-2)}$$

$$\frac{8a}{(a+2)(a-2)} + \frac{a^2-4a+4}{(a+2)(a-2)}$$

$$\frac{8a + a^2 - 4a + 4}{(a+2)(a-2)}$$

$$\frac{a^2 + 4a + 4}{(a+2)(a-2)}$$

factor

$$\frac{(a+2)(a+2)}{(a+2)(a-2)}$$

$$\boxed{\frac{a+2}{a-2}}$$