Add or subtract as indicated and reduce your answer to lowest terms.

1)

$$\frac{y+9}{y-8} - \frac{y-9}{8-y}$$

$$= \frac{y+9}{y-8} - \frac{y-9}{-1(y-8)}$$

$$= \frac{y+9}{y-8} - (-1)\left(\frac{y-9}{y-8}\right)$$

$$= \frac{y+9}{y-8} + \frac{y-9}{y-8}$$

$$= \frac{y+9+y-9}{y-8}$$

$$= \frac{2y}{y-8}$$

2) $\frac{x+8}{x-3} - \frac{8x-42}{x^2-9}$