$$\frac{\frac{4 \text{ r}}{r^2 - 4} + \frac{r + 3}{6 \text{ r} - 12}}{\frac{r^2 - 6 \text{ r} + 6}{r^2 - 4}}$$

أجد ناتج ما يأتي واكتبه في أبسط صورة: 4٠

$$\frac{r^{2}+24 r+3}{r^{2}-4}$$

$$\frac{r^{2}+29 r+6}{6 r^{2}-24}$$

$$\frac{r^{2}+5 r+3}{r^{2}+5 r+3}$$

الحل:

$$\frac{4 r}{r^2 - 4} + \frac{r + 3}{6 r - 12} = \frac{4 r}{(r - 2) (r + 2)} + \frac{r + 3}{6 (r - 2)}$$

$$= \frac{6}{6(r-1)}$$

$$= \frac{6(4 r)}{6(r-2)(r+2)} + \frac{(r+3)(r+2)}{6(r-2)(r+2)}$$
$$= \frac{24 r}{r^2+5 r+6}$$

$$=\frac{6(41)}{6(r-2)}$$

 $= \frac{r^2 + 29 r + 6}{r^2 + 29 r + 6}$ 6 r²-24

$$= \frac{24 \text{ r}}{6 (r-2) (r+2)} + \frac{r^2+5 r+6}{6 (r-2) (r+2)}$$

$$= \frac{6(r-2)(r+2)}{6(r-2)(r+2)} \cdot \frac{6(r-2)}{6(r-2)(r+2)}$$

$$\frac{6(r-2)(r+2)}{6(r-2)(r+2)} + \frac{24 r}{6(r-2)(r+2)}$$

$$\frac{24 \text{ r}}{2) (r+2)} + \frac{6}{6}$$

$$\frac{r^2}{(+2)} + \frac{r^2}{6(r^2)}$$