

A. 15

$\sum_{n=1}^{\infty} \frac{n!}{e^{2n}}$ Konvergen. Akan ditunjukkan dengan ratio test.

$$\lim_{n \rightarrow \infty} \frac{a_{n+1}}{a_n} = \frac{(n+1)}{e^{2n+1}} \sim \frac{\infty}{\infty}$$

karena $\frac{\infty}{\infty}$, kita boleh menggunakan L'Hopital.

$$\lim_{n \rightarrow \infty} \frac{n!}{e^{2n}} = \lim_{n \rightarrow \infty} \frac{1}{2e^{2n}} = 0.$$

karena limit 0, by ratio test deret konvergen

B. $\frac{x}{(1-x)^3} = f_0 + f_1 x + f_2 x^2 + \dots$

$$x = (1-x)^3 (f_0 + f_1 x + f_2 x^2 + \dots)$$

$$= f_0 + f_1 x + \dots$$

$$+ -3x f_0 - 3f_1 x^2 - 3f_2 x^3 - \dots$$

$$+ 3f_0 x^2 + 3f_1 x^3 + \dots$$

$$- f_0 x^3 - f_1 x^4 - \dots$$

$$= f_0 + x(f_1 - 3f_0) + x^2(f_2 - 3f_1 + 2f_0) + x^3$$



GACOAN

PANGSIT GORENG ○ MIE SUIT ○
MIE HOMPIMPÁ ○ MIE GACOAN ○

LEVEL 0 1 2 3 4 6 8

