

Oef 1 (34)

$$\int \frac{-2x-4}{x(x^2+x+1)} dx$$

Step 1 $gr T \geq gr N$? Nee

Step 2

1) $N = x(x^2+x+1)$
 $D = 1 - 4 = -3 < 0$

2) Splitsen in TB

$$\frac{-2x-4}{x(x^2+x+1)} = \frac{A}{x} + \frac{Bx+C}{x^2+x+1}$$

$$= \frac{A(x^2+x+1) + (Bx+C)x}{x(x^2+x+1)}$$

$$\begin{cases} A+B=0 \\ A+C=-2 \\ A=-4 \end{cases} \Leftrightarrow \begin{cases} A=-4 \\ B=4 \\ C=-2-A=2 \end{cases}$$

$$\int \frac{-2x-4}{x(x^2+x+1)} dx = -4 \int \frac{dx}{x} + \int \frac{4x+2}{x^2+x+1} dx$$

ln|x| *stand. type*

$$\int \frac{\sqrt{t} \cdot gr}{(\sqrt{t} \cdot gr \ D < 0)^p} dx$$

methode: \rightarrow schrijf in de T de afjel. v/d 2^o gr
en corrigeren tot je de F bekomt

$$\int \frac{2(2x+1)}{x^2+x+1} dx = 2 \int \frac{dt}{t} = 2 \ln|t| + C$$

$$= 2 \ln|x^2+x+1| + C$$