

永中鍾定棚

DATE 2024

12

8

NO 三校教123

三校教作89

ex. 2 用综合除法

1) $\frac{g(x)}{r(x)}$ of $(2x^4 + x^2 - 5x + 1) \div (x - 2)$

$$\begin{array}{r|rrrrr} 2 & 2 & 0 & 1 & -5 & 1 \\ & & 4 & 8 & 18 & 26 \\ \hline & 2 & 4 & 9 & 13 & 27 \end{array}$$

$$g(x) = 2x^3 + 4x^2 + 9x + 13 \#$$

$$r(x) = 27 \#$$

2) $\frac{g(x)}{r(x)}$ of $(2x^4 + x^2 - 5x + 1) \div (2x - 3)$

$$g(x) = \frac{1}{2} g'(x)$$

$$r(x) = r'(x)$$

$$\text{let } (2x^4 + x^2 - 5x + 1) \div (x - \frac{3}{2}) = g'(x) \dots r'(x)$$

$$\begin{array}{r|rrrrr} 2 & 2 & 0 & 1 & -5 & 1 \\ & & 3 & \frac{9}{2} & \frac{33}{4} & \frac{39}{8} \\ \hline & 2 & 3 & \frac{11}{2} & \frac{13}{4} & \frac{47}{8} \end{array}$$

$$g'(x) = 2x^3 + 3x^2 + \frac{11}{2}x + \frac{13}{4} \Rightarrow g(x) = x^3 + \frac{3}{2}x^2 + \frac{11}{4}x + \frac{13}{8} \#$$

$$r'(x) = \frac{47}{8}$$

$$\Rightarrow r(x) = \frac{47}{8} \#$$