

整式のわり算 (その4)

$$2x^2 - x - 3 \overline{) 4x^3 - 6x^2 + 7}$$

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$$\begin{array}{r} \overline{) 4x^3 - 6x^2 + 7} \end{array}$$

$$2x^2 \times = 4x^3 \text{ を考える}$$

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The image shows a polynomial long division problem. The divisor is $2x^2 - x - 3$ and the dividend is $4x^3 - 6x^2 + 7$. A horizontal line is drawn under the dividend. The first step of the division is shown, with the quotient $2x$ written above the line. The term $2x$ is highlighted in a yellow box. The next step would be to multiply the divisor by $2x$ and subtract the result from the dividend.

整式のわり算 (その4)

$$\begin{array}{r} 2x \\ \hline 2x^2 - x - 3 \quad) \quad 4x^3 - 6x^2 \quad + 7 \end{array}$$

$$2x(2x^2 - x - 3) = 4x^3 - 2x^2 - 6x \quad \text{となるので}$$

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$$\begin{array}{r} 2x \\ \hline 2x^2 - x - 3 \) \ 4x^3 - 6x^2 \qquad + 7 \\ \underline{4x^3 - 2x^2 - 6x} \end{array}$$

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ひき算

整式のわり算 (その4)

$$\begin{array}{r} 2x \\ \hline 2x^2 - x - 3 \overline{) 4x^3 - 6x^2 + 7} \\ \underline{-4x^3 \quad \neq 2x^2 \quad \neq 6x} \\ \end{array}$$

ひき算

整式のわり算 (その4)

$$\begin{array}{r} 2x \\ \hline 2x^2 - x - 3 \) \ 4x^3 - 6x^2 \\ \underline{-4x^3 \quad \neq \quad 2x^2 \quad \neq \quad 6x} \\ -4x^2 + 6x \\ \hline + 6x + 7 \end{array}$$

そのまゝ ↓

整式のわり算 (その4)

$$\begin{array}{r} 2x^2 - x - 3 \) \ 4x^3 - 6x^2 + 7 \\ \underline{-4x^3 + 2x^2 + 6x} \\ -4x^2 + 6x + 7 \end{array}$$

$$2x^2 \times \quad = -4x^2 \text{ を考える}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x^2 - x - 3 \) \ 4x^3 - 6x^2 + 7 \\ \underline{-4x^3 + 2x^2 + 6x} \\ -4x^2 + 6x + 7 \end{array}$$

$$2x^2 \times -2 = -4x^2 \text{ を考える}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x^2 - x - 3 \) \ 4x^3 - 6x^2 + 7 \\ \underline{-4x^3 + 2x^2 + 6x} \\ -4x^2 + 6x + 7 \end{array}$$

$$2x^2 \times -2 = -4x^2 \text{ を考える}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x^2 - x - 3 \) \ 4x^3 - 6x^2 + 7 \\ \underline{4x^3 - 2x^2 + 6x} \\ -4x^2 + 6x + 7 \end{array}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x \quad -2 \\ \hline 2x^2 - x - 3 \) \ 4x^3 - 6x^2 \quad + 7 \\ \underline{-4x^3 \quad + 2x^2 \quad + 6x} \\ -4x^2 + 6x + 7 \end{array}$$

$$-2(2x^2 - x - 3) = -4x^2 + 2x + 6 \text{ となるので}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x \quad -2 \\ \hline 2x^2 - x - 3 \) \ 4x^3 - 6x^2 \quad + 7 \\ \underline{-4x^3 \quad + 2x^2 \quad + 6x} \\ -4x^2 \quad + 6x \quad + 7 \\ \underline{-4x^2 \quad + 2x \quad + 6} \end{array}$$

$-2(2x^2 - x - 3) = -4x^2 + 2x + 6$ となるので

整式のわり算 (その4)

$$\begin{array}{r} 2x \quad -2 \\ \hline 2x^2 - x - 3 \) \ 4x^3 - 6x^2 \quad \quad + 7 \\ \quad - 4x^3 \quad \neq 2x^2 \quad \neq 6x \\ \quad \quad \quad \hline \quad \quad \quad -4x^2 + 6x + 7 \\ \quad \quad \quad -4x^2 + 2x + 6 \\ \quad \quad \quad \quad \quad \quad \hline \end{array}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x^2 - x - 3 \overline{) 4x^3 - 6x^2 + 7} \\ \underline{-4x^3 + 2x^2 + 6x} \\ -4x^2 + 6x + 7 \\ \underline{-4x^2 + 2x + 6} \\ + x + 1 \end{array}$$

ひき算

整式のわり算 (その4)

$$\begin{array}{r}
 2x^2 - x - 3 \overline{) 4x^3 - 6x^2 + 7} \\
 \underline{-4x^3 \quad \color{red}{=} 2x^2 \quad \color{red}{=} 6x} \\
 -4x^2 + 6x + 7 \\
 \color{red}{\text{ひき算}} \quad \underline{\color{red}{=} 4x^2 \quad \color{red}{=} 2x \quad \color{red}{=} 6} \\
 4x + 1
 \end{array}$$

整式のわり算 (その4)

$$\begin{array}{r} 2x^2 - x - 3 \overline{) 4x^3 - 6x^2 + 7} \\ \underline{-4x^3 + 2x^2 + 6x} \\ -4x^2 + 6x + 7 \\ \underline{+4x^2 - 2x - 6} \\ 4x + 1 \end{array}$$

整式のわり算 (その4)

$$\begin{array}{r}
 2x^2 - x - 3 \overline{) 4x^3 - 6x^2 \\
 \underline{-4x^3 \quad + 2x^2 \quad + 6x} \\
 -4x^2 + 6x + 7 \\
 \underline{ + 4x^2 \quad - 2x \quad - 6} \\
 4x + 1
 \end{array}$$

商 $2x - 2$, あまり $4x + 1$