

組合せ C の計算例

$6C_3$

組合せCの計算例

$${}^6C_3 = \frac{6 \times 5 \times 4}{3 \times 2 \times 1}$$

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$${}^6C_3 = \frac{6 \times 5 \times 4}{3 \times 2 \times 1}$$

3個

組合せCの計算例

$${}^6C_3 = \frac{\cancel{6} \times 5 \times 4}{\cancel{3} \times 2 \times 1}$$

組合せCの計算例

$${}^6C_3 = \frac{\cancel{6} \times 5 \times 4}{\cancel{3} \times \cancel{2} \times 1} = 5 \times 4$$

組合せCの計算例

$$\begin{aligned} {}_6C_3 &= \frac{\cancel{6} \times 5 \times 4}{\cancel{3} \times \cancel{2} \times 1} = 5 \times 4 \\ &= 20 \end{aligned}$$

組合せ C の計算例

$7C_2$

組合せ C の計算例

$${}^7C_2 = \frac{7 \times 6}{2 \times 1}$$

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$${}^7C_2 = \frac{7 \times 6}{2 \times 1}$$

2個

組合せ C の計算例

$${}^7C_2 = \frac{7 \times 6}{2 \times 1}$$

組合せCの計算例

$${}^7C_2 = \frac{7 \times \cancel{6}^3}{\cancel{2}_1 \times 1}$$

組合せCの計算例

$${}^7C_2 = \frac{7 \times \cancel{6}^3}{\cancel{2}_1 \times 1} = 7 \times 3$$

組合せCの計算例

$${}^7C_2 = \frac{7 \times \cancel{6}^3}{\cancel{2}_1 \times 1} = 7 \times 3 = 21$$

組合せ C の計算例

$${}_{11}C_5$$

組合せCの計算例

$${}_{11}C_5 = \frac{11 \times 10 \times 9 \times 8 \times 7}{5 \times 4 \times 3 \times 2 \times 1}$$

組合せCの計算例

$${}_{11}C_5 = \frac{11 \times 10 \times 9 \times 8 \times 7}{5 \times 4 \times 3 \times 2 \times 1}$$

The diagram illustrates the calculation of the combination ${}_{11}C_5$. The numbers 11 and 5 in the notation are circled in red and green, respectively. A red arrow points from the circled 11 to the numerator of the fraction, and a green arrow points from the circled 5 to the denominator. The denominator is further annotated with a blue bracket underneath the terms 5, 4, 3, 2, and 1, and a label "5個" (5 items) in blue, indicating that there are 5 items in the denominator.

組合せCの計算例

$${}_{11}C_5 = \frac{11 \times \cancel{10} \times 9 \times 8 \times 7}{\cancel{5} \times 4 \times 3 \times \cancel{2} \times 1}$$

組合せCの計算例

$${}_{11}C_5 = \frac{11 \times \cancel{10} \times 9 \times \cancel{8} \times 7}{\cancel{5} \times \underset{1}{\cancel{4}} \times 3 \times \cancel{2} \times 1}$$

組合せCの計算例

$${}_{11}C_5 = \frac{11 \times \cancel{10} \times \cancel{9}^3 \times \cancel{8}^2 \times 7}{\cancel{5} \times \cancel{4}^1 \times \cancel{3}^1 \times \cancel{2} \times 1}$$

組合せCの計算例

$$\begin{aligned} {}_{11}C_5 &= \frac{11 \times \cancel{10} \times \cancel{9}^3 \times \cancel{8}^2 \times 7}{\cancel{5} \times \cancel{4}^1 \times \cancel{3}^1 \times \cancel{2} \times 1} \\ &= 11 \times 3 \times 2 \times 7 \end{aligned}$$

組合せCの計算例

$$\begin{aligned} {}_{11}C_5 &= \frac{11 \times \cancel{10} \times \overset{3}{\cancel{9}} \times \overset{2}{\cancel{8}} \times 7}{\cancel{5} \times \underset{1}{\cancel{4}} \times \underset{1}{\cancel{3}} \times \cancel{2} \times 1} \\ &= 11 \times 3 \times 2 \times 7 \\ &= 462 \end{aligned}$$