

連絡事項

パスカルの三角形

$$1. (a+b)^2 = a^2 + 2ab + b^2$$

$$\begin{aligned} 2. (a+b)^3 &= (a+b)(a+b)^2 \\ &= (a+b)(a^2 + 2ab + b^2) \\ &= a^3 + 2a^2b + ab^2 + a^2b + 2ab^2 + b^3 \\ &= a^3 + 3a^2b + 3ab^2 + b^3 \end{aligned}$$

$$(a+b)^7 = a^7 + 7a^6b + 21a^5b^2 + \dots$$

$$\begin{aligned} (a+b)^1 & \\ (a+b)^2 & \\ (a+b)^3 & \\ (a+b)^4 & \\ (a+b)^5 & \\ (a+b)^6 & \\ (a+b)^7 & \end{aligned}$$

$$\begin{array}{ccccccc} & & & & 1 & & \\ & & & 1 & & & \\ & & 1 & & 3 & & \\ & 1 & & 6 & & 1 & \\ 1 & & 10 & & 21 & & 1 \\ & 1 & & 15 & & 6 & \\ & & 1 & & 7 & & 21 \end{array}$$

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