$$(ab)^n = a^n b^n$$
 (*n* are natural numbers.)

$$n$$
이 자연수일 때, $(ab)^n = a^n b^n$ $((ab)^n = a^n b^n (n \text{ are natural numbers.}))$



$$(ab)^n$$

$$(ab)^n = \underbrace{ab \times \cdots \times ab}_n$$

$$(ab)^{n} = \underbrace{ab \times \cdots \times ab}_{n}$$

$$= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{n}$$

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$$= \underbrace{(a \times \cdots \times a)}_{n} \times \underbrace{(b \times \cdots \times b)}_{n}$$

$$(ab)^{n} = \underbrace{ab \times \cdots \times ab}_{n}$$

$$= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{n}$$

$$= \underbrace{(a \times \cdots \times a)}_{m} \times \underbrace{(b \times \cdots \times b)}_{n}$$

$$= a^{n}$$

$$(ab)^{n} = \underbrace{ab \times \cdots \times ab}_{n}$$

$$= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{n}$$

$$= \underbrace{(a \times \cdots \times a)}_{m} \times \underbrace{(b \times \cdots \times b)}_{n}$$

$$= a^{n} \times$$

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$$= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{n}$$

$$= \underbrace{(a \times \cdots \times a)}_{m} \times \underbrace{(b \times \cdots \times b)}_{n}$$

$$= a^{n} \times b^{n}$$

$$(ab)^{n} = \underbrace{ab \times \cdots \times ab}_{n}$$

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$$= a^{n} \times b^{n} = a^{n}b^{n}$$

→ Start

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$$\therefore (ab)^{n} =$$

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$$\therefore (ab)^{n} = a^{m}b^{n}$$



END