$$(ab)^n = a^n b^n$$
 (*n* is natural number.)

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

▶ Start



 $(ab)^n$

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

➤ Start

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

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

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

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

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

➤ Start

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

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

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

$$= a^{n}$$

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

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

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

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

➤ Start

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

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

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

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

▶ Start

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

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

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

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

→ Start

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

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

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

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

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

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

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

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

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

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

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

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

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



END