m, n 이 자연수일 때, $(ab)^m = a^m b^m$
($(ab)^m = a^m b^m$ (m, n are natural numbers.))

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Start

Start

$$(ab)^m$$

Start

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

▸ Start

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

▸ Start

$$
\begin{aligned}
(ab)^m &= \underbrace{ab \times \cdots \times ab}_{m} \\
&= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{m} \\
&= (\underbrace{a \times \cdots \times a}_{m}) \times (\underbrace{b \times \cdots \times b}_{m})
\end{aligned}
$$

Start

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(ab)^m &= \underbrace{ab \times \cdots \times ab}_{m} \\
&= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{m} \\
&= (\underbrace{a \times \cdots \times a}_{m}) \times (\underbrace{b \times \cdots \times b}_{m}) \\
&= a^m
\end{aligned}$$

▸ Start

$$\begin{aligned}(ab)^m &= \underbrace{ab \times \cdots \times ab}_{m} \\ &= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{m} \\ &= (\underbrace{a \times \cdots \times a}_{m}) \times (\underbrace{b \times \cdots \times b}_{m}) \\ &= a^m \times\end{aligned}$$

▸ Start

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&= \underbrace{(a \times b) \times \cdots \times (a \times b)}_{m} \\
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&= a^m \times b^m
\end{aligned}
$$

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&= a^m \times b^m = a^m b^m
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$$

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$$

$\therefore$

Start

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

$$\therefore (ab)^m =$$

Start

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

Start

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\end{aligned}
$$

$$\therefore (ab)^m = a^m b^m$$

Home

END