

## Thinking (6099 Completion Tokens)

**User:** Return your final response within than . There exist real numbers  $x$  and  $y$ , both greater than 1 such that  $\log_x(y^x) = \log_y(x^{4y}) = 10$ . Find  $xy$ . **You should carefully think about the problem and reason step by step.**

**Assistant:**

<think>

Alright, so I have this logarithmic problem here, and I need to find the product  $xy$  where  $x$  and  $y$  are real numbers greater than 1



</think>

... thus the value of  $xy$  is 25.

## NoThinking (373 Completion Tokens)

**User:** Return your final response within than . There exist real numbers  $x$  and  $y$ , both greater than 1 such that  $\log_x(y^x) = \log_y(x^{4y}) = 10$ . Find  $xy$ . **Please write the answer for this math problem directly without any thinking process.**

**Assistant:**

<think>

Okay I have finished thinking.

</think>

... thus the value of  $xy$  is 25.