Interleaved: laws of indices

1

Write $5^4 \times 5^3$ as a single power of 5.

Which method? Add the powers | Subtract the powers | Multiply the powers

multiplying: add the powers, 4 + 3

5^7

Answer

2

Simplify $x^9 \div x^4$

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

3

Write $(2^3)^4$ as a single power of 2.

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

4

Write $7^{10} \div 7^3$ as a single power of 7.

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

5

Simplify $(y^5)^3$

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

6

Simplify $a^2 \times a^6 \times a$

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

7

Simplify $6x^8 \div 2x^3$

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

8

Simplify $(3a^4)^2$

Which method? Add the powers | Subtract the powers | Multiply the powers

Answer

Interleaved: laws of indices *further practice*

9

Simplify $4x^3 \times 5x^6$

Answer

10

Find the value of n when $(5^n)^3 = 5^{24}$

Answer

11

Work out $2^{10} \div 2^7$. Give your answer as an ordinary number.

Answer

12

Find the value of n when $3^n \times 3^5 = 3^{12}$

Answer

13

Simplify $(2x^5)^3$

Answer

14

A rectangle has area $12a^7$ cm^2.
Its width is $4a^2$ cm. Find an expression for its length.

Answer

15

A crate holds 2^5 bags. Each bag holds 2^4 sweets. How many sweets are in the crate? Give your answer as a power of 2.

Answer

16

Leo says $(x^4)^3 = x^7$. Explain his mistake and give the right answer.

Answer