Index Laws: Multiplying and Dividing

1

Write as a single power of 7.

$7^{x+4} \times 7^{2x-1}$

Answer _____

2

Write as a single power of 6.

$6^{-3} \times 6^{8} \div 6^{-2}$

Answer _____

3

Write as a single power of 2.

$8^{5} \times 2^{4}$

Answer _____

4

Simplify.

$(2y^5)^3 \div 4y^2$

Answer _____

5

Simplify.

$$\frac{6m^5n^2 \times 2mn^4}{9m^3n^7}$$

Answer _____

6

Find the missing power.

$5^{2x} \times 5^{?} = 5^{x+7}$

Answer _____

7

Find the value of x.

$25^{x+1} = 5^{9} \times 5^{7} \div 5^{4}$

Answer _____

8

$6 \times 2^{10} + 5 \times 2^{11} = a^b$, where a is a prime number.

Find a and b.

Answer _____