

Modulo Multiplicación y división de potencias con igual base

- Ejercicios

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Resuelve los siguientes ejercicios de producto de potencias de la misma base.

1. Calcula  $\left(\frac{-2}{3}\right)^4 \cdot \left(\frac{-2}{3}\right)^9 =$

2. Calcula  $\left(\frac{-3}{2}\right)^4 \cdot \left(\frac{-3}{2}\right)^3 =$

3. Calcula  $\left(\frac{3}{5}\right)^6 \cdot \left(\frac{3}{5}\right)^{-2} =$

4. Calcula  $\left(\frac{1}{4}\right)^{-2} \cdot \left(\frac{1}{4}\right)^{-3} =$

5. Calcula  $\left(\frac{1}{4}\right)^5 \cdot \left(\frac{1}{4}\right)^{-3} =$

6. Calcula  $\left(\frac{2}{3}\right)^7 \cdot \left(\frac{2}{3}\right)^{-3} =$

7. Calcula  $\left(\frac{-2}{3}\right)^{-4} \cdot \left(\frac{-2}{3}\right)^8 =$

8. Calcula  $\left(\frac{2}{13}\right)^{-7} \cdot \left(\frac{2}{13}\right)^9 =$

9. Calcula  $\left(\frac{1}{9}\right)^7 \cdot \left(\frac{1}{9}\right)^{-6} =$

Resuelve los siguientes ejercicios de cociente de potencias de la misma base.

10. Calcula  $\left(\frac{3}{4}\right)^3 \div \left(\frac{3}{4}\right)^2 =$

11. Calcula  $\left(\frac{4}{3}\right)^{-2} \div \left(\frac{4}{3}\right)^4 =$

12. Calcula  $\left(\frac{3}{7}\right)^6 \div \left(\frac{3}{7}\right)^4 =$

13. Calcula  $\left(\frac{2}{5}\right)^{-2} \div \left(\frac{2}{5}\right)^6 =$

14. Calcula  $\left(\frac{-2}{3}\right)^{-5} \div \left(\frac{-2}{3}\right)^{-3} =$

15. Calcula  $\left(\frac{-1}{7}\right)^4 \div \left(\frac{-1}{7}\right)^{-3} =$

16. Calcula  $10^3 \div 10^2 =$

17. Calcula  $6^4 \div 6^3 =$

18. Calcula  $(8:4)^4 \div 2^2 =$

19. Calcula  $(15:5)^8 \div 3^4 =$

## Respuestas

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1. Calcula  $\left(\frac{-2}{3}\right)^4 \cdot \left(\frac{-2}{3}\right)^9 = \frac{(-2)^{13}}{3^{13}}$
2. Calcula  $\left(\frac{-3}{2}\right)^4 \cdot \left(\frac{-3}{2}\right)^3 = \frac{(-3)^7}{2^7}$
3. Calcula  $\left(\frac{3}{5}\right)^6 \cdot \left(\frac{3}{5}\right)^{-2} = \frac{81}{625}$
4. Calcula  $\left(\frac{1}{4}\right)^{-2} \cdot \left(\frac{1}{4}\right)^{-3} = 4^5 = 1024$
5. Calcula  $\left(\frac{1}{4}\right)^5 \cdot \left(\frac{1}{4}\right)^{-3} = \frac{1^2}{4^2} = \frac{1}{16}$
6. Calcula  $\left(\frac{2}{3}\right)^7 \cdot \left(\frac{2}{3}\right)^{-3} = \frac{2^4}{3^4} = \frac{16}{81}$
7. Calcula  $\left(\frac{-2}{3}\right)^{-4} \cdot \left(\frac{-2}{3}\right)^8 = \frac{(-2)^4}{3^4} = \frac{16}{81}$
8. Calcula  $\left(\frac{2}{13}\right)^{-7} \cdot \left(\frac{2}{13}\right)^9 = \frac{2^2}{13^2} = \frac{4}{169}$
9. Calcula  $\left(\frac{1}{9}\right)^7 \cdot \left(\frac{1}{9}\right)^{-6} = \frac{1}{9}$
10. Calcula  $\left(\frac{3}{4}\right)^3 \div \left(\frac{3}{4}\right)^2 = \frac{3}{4}$
11. Calcula  $\left(\frac{4}{3}\right)^{-2} \div \left(\frac{4}{3}\right)^4 = \frac{3^6}{4^6}$
12. Calcula  $\left(\frac{3}{7}\right)^6 \div \left(\frac{3}{7}\right)^4 = \frac{9}{49}$
13. Calcula  $\left(\frac{2}{5}\right)^{-2} \div \left(\frac{2}{5}\right)^6 = \frac{5^8}{2^8}$
14. Calcula  $\left(\frac{-2}{3}\right)^{-5} \div \left(\frac{-2}{3}\right)^{-3} = \frac{9}{4}$

15.  $10^1$

16.  $6^1$

17. 1

18.  $3^4$