

$$\textcircled{1} a^n \times a^m = a^{n+m}$$

$$\frac{x^7}{x^2} = x^9$$

$$\textcircled{2} \frac{a^n}{a^m} = a^{n-m}$$

$$\Rightarrow \frac{x^3}{x^1} = x^2$$

$$\textcircled{3} (a^n)^m = a^{n \times m}$$

$$\Rightarrow (2^3)^2 = 2^6$$

$$\textcircled{4} a^{-n} = \frac{1}{a^n}$$

$$\Rightarrow 2^{-2} = \frac{1}{2^{+2}}$$

$$2^{-1} = \frac{1}{2^{+1}}$$

$$7^{-5} = \frac{1}{7^5}$$

$$x^{-3} = \frac{1}{x^{+3}}$$

$$2^3 = 2 \times 2 \times 2 = 8$$

$$3^3 = 3 \times 3 \times 3 = 27$$

$$2^4 = 2 \times 2 \times 2 \times 2 = 16$$

$$A = \frac{4^3 \times 2^7}{4^1 \times 2^5} = 4^2 \times 2^2 = (4 \times 2)^2 = 8^2 = 64$$

$$B = \frac{5^7 \times 2^9}{5^4 \times 2^6} = 5^3 \times 2^3 = (5 \times 2)^3 = 10^3 = 1000$$

$$\textcircled{1} z^{+10} \times z^{-8} = z^{+2}$$

$$\textcircled{2} 10^7 \times 10^2 = 10^9$$

$$\textcircled{3} 10^6 \times 10^{-6} = 10^{-12}$$

$$\textcircled{4} 2^7 \times 2^4 = 2^{11}$$

$$\textcircled{1} \frac{2^{12}}{2^2} = 2^{10}$$

$$\textcircled{2} \frac{3^7}{3^{-2}} = 3^7 \times 3^{+2} = 3^9$$

$$\textcircled{3} \frac{2^{10}}{2^{-5}} = 2^{10} \times 2^{+5} = 2^{15}$$

خواص القوى

القوة

 $a^n$ 

الأساس

Subject

Date

$$\frac{2^6}{2} = 2^5$$

① نصف  $2^6$  هو

$$\frac{4^{12}}{4} = 4^{11}$$

② ربع  $4^{12}$ 

$$\frac{5^3}{5} = 5^2$$

③  $5^3$  مقسوم④ اكتب بالصيغة  $a \times 10^{-n}$ 

$$\textcircled{1} 0,0024 = 24 \times 10^{-4}$$

$$\textcircled{2} 0,00517 = 517 \times 10^{-5}$$

$$\textcircled{3} 0,025 = 25 \times 10^{-3}$$

$$(x^{-3})^2 = x^{-6}$$

$$(y^{-3})^{-3} = y^9$$

$$(z^2)^{10} = z^{20}$$