

Sec. 1.4 Exponent Laws (Part B)

1. Use the power of product rule to **remove the brackets** & write each expression as a product of powers or a quotient of powers.

a) $(3 \times 2)^4$

b) $[(-4) \times 3]^2$

c) $[(-2) \times (-4)]^0$

d) $(10 \div 5)^3$

e) $[(-12) \div (-6)]^2$

f) $\left(\frac{8}{4}\right)^4$

2. Write as a power.

a) $(3^4)^2$

b) $(5^0)^3$

c) $-(7^2)^2$

d) $[(-3)^3]^2$

3. Simplify, then evaluate.

a) $(2^3 \times 2^1)^2$

b) $(5^4 \div 5^2)^2$

c) $[(-3)^0 \times (-3)^3]^2$

d) $(10^2)^4 \div (10^3)^2$

4. Simplify, then evaluate each expression.

a) $(2^3 \div 2^2)^3 + (7^4 \times 7^3)^0$

b) $[(-1)^3]^4 - [(-1)^4 \div (-1)^3]^2$

c) $(4^2 \times 4^3)^0 - (3^2)^2$

d) $(10^6 \div 10^3)^2 + (2^3 \div 2^1)^4$