Multiplying Exponents

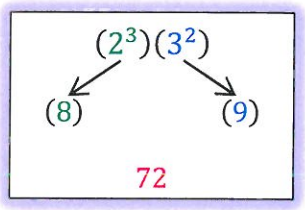
When multiplying exponential expressions with common bases, add the exponents.

e.g. (1) $(4^2)(4^3) = 4^{2+3} = 4^5$

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

(3) $(m^{-6})(m^2) = m^{-6+2} = x^{-4}$

Remember you must have common bases to add the exponents. You cannot add the exponents of the expression $(2^3)(3^2)$ can be evaluated as:



Examples:

(a)	$(x^4)(x^{-2})$ $x^{4+(-2)}$ x^2	(b)	$(m^2)(m^6)$ m^{2+6} m^8	(c)	$(3^{-4})(3^6)$ $3^{(-4)+6}$ 3^2
(d)	$(5^1)(4^2)$ $(5)(16)$ 80	(e)	$(6^0)(6^0)$ $(1)(1)$ 1	(f)	$(2^{-3})(2^{-4})$ $2^{(-3)+(-4)}$ 2^{-7}