

Equation Correction

The following equation is NOT true for all real numbers.

$$A^m + A^n = A^{m+n}$$

where $A \neq 0$

$$1^0 + 1^1 \neq 1^{0+1}$$

$$2^1 + 2^2 \neq 2^{1+2}$$

1. Can you find any numbers that will make the equation true ?
2. Correct the equation by including a factor that includes A, M, N and the math symbols + and – so that the equation will be true for all real numbers m, n and A where A is not equal to 0.

Part 1

$$2^l + 2^l = 2^{l+1}$$

Part 2

$$A^m + A^n = A^{m+n} (A^{-n} + A^{-m})$$