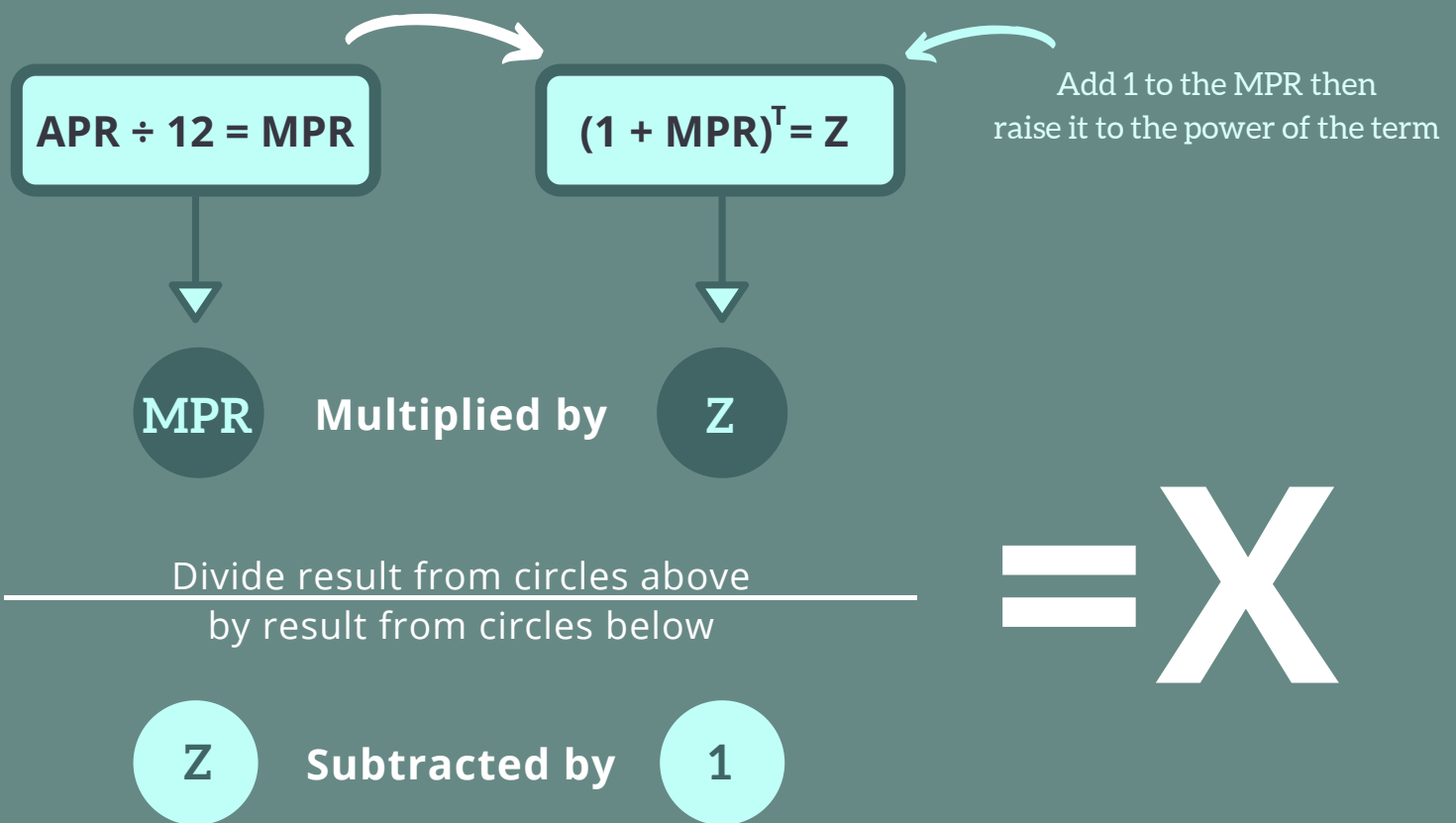# M L X

AUTO LOAN CALCULATOR

How does it work?

$$M = L\,X$$

Monthly Payment (M) equals Loan Amount (L) times the X Factor (X)

Annual Percentage Rate (APR) is converted to Monthly Percentage Rate (MPR).
Term in Years is converted to the **Term in Months** (T) so all factors relate accurately.

$$APR \div 12 = MPR$$

$$(1 + MPR)^{T} = Z$$

Add 1 to the MPR then raise it to the power of the term

MPR Multiplied by **Z**

$$= X$$

Divide result from circles above
by result from circles below

Z Subtracted by **1**

What is the X Factor?
It's the equation used to charge interest to the unpaid portion of the loan every month as the buyer pays it down over the term. The MPR is charged on the full loan amount the first month, then the full amount minus one payment's principal the second month, then minus two the third month, and so on until the end of the term.

REFERENCE:

MLX Calc

M=LX
CAR LOAN CALCULATOR

BY F&I TOOLS

$$(MPR \times Z) \div (Z - 1) = X$$