

## ROOTS OF ONE

## Definition

The equation

$$x^p = 1$$

has p roots and these are called the p roots of 1. We call the complex numbers which solve this equation the pth roots of one or the (pth) roots of unity.

A nth root of unity  $r \in \mathbf{R}$  is primitive if it is not an mth root of unity for any m < n.

 $<sup>^1{\</sup>rm Future}$  editions will expand.

