Why

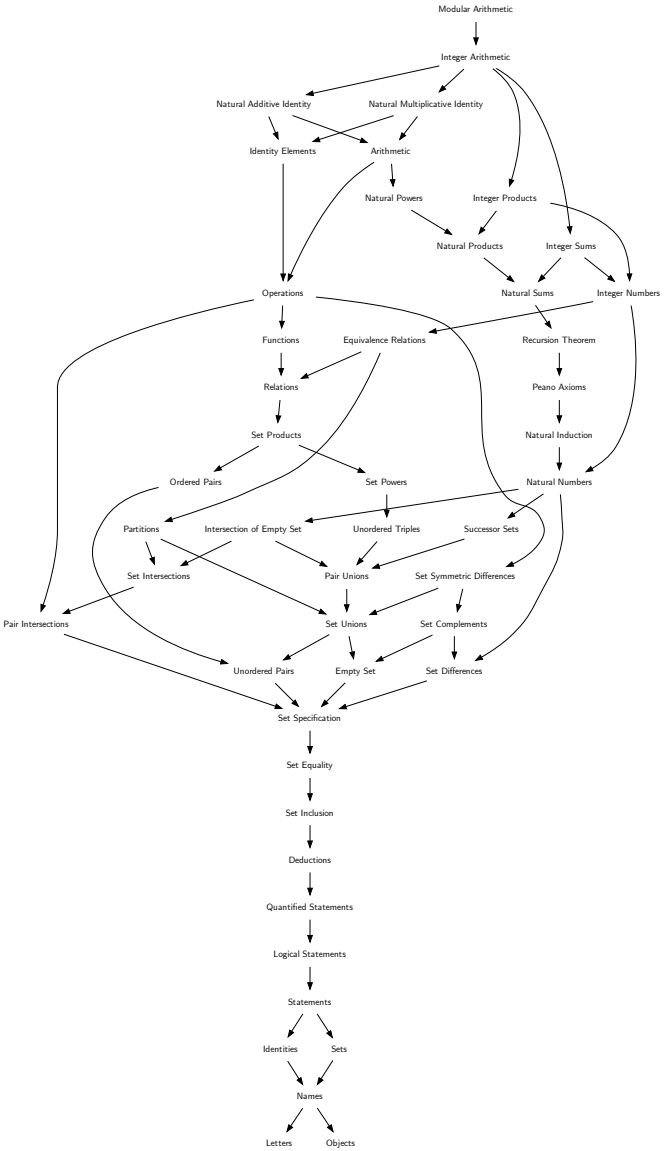
We want to count in circles.[1]

Definition

Let $n \in \mathbf{Z}$ with $n > 1$ and take $a, b \in \mathbf{Z}$. The integers a and b are *congruent modulo* n (or with respect to the *modulus* n) if n is a divisor of their difference.[2]

[1] Future editions will expand.

[2] Future editions will expand, and may need a sheet on congruence relations.


Modular Arithmetic
Integer Arithmetic
Natural Additive Identity
Natural Multiplicative Identity
Identity Elements
Arithmetic
Natural Powers
Integer Products
Natural Products
Integer Sums
Operations
Natural Sums
Integer Numbers
Functions
Equivalence Relations
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Partitions
Intersection of Empty Set
Unordered Triples
Successor Sets
Set Intersections
Pair Unions
Set Symmetric Differences
Pair Intersections
Set Unions
Set Complements
Unordered Pairs
Empty Set
Set Differences
Set Specification
Set Equality
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Statements
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