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| Basic Outline of Universal Algebra |
| Structure | Set 1 |   | Set 2 |
| Op 1 |   | Op 2 | Action | Op 1 |   | Op 2 |
| A | Id | In | C | D | A | Id | In | C | D1-1 | D’1-2 | D2-1 | D’2-2 | A | Id | In | C | D | A | Id | In | C |
| Magma |   |   |   | b |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Semigroup | x |   |   | b |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Monoid | x | x |   | b |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Group** | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Abelian Group | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Ring** | x | x | x | x | x | x |   |   | b |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Unitary Ring | x | x | x | x | x | x | x |   | b |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Division Ring | x | x | x | x | x | x | x | x | b |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Field** | x | x | x | x | x | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Module | x | x | x | x |   |   |   |   |   | x |   | x | x | x | x | x | x | x | x |   |   |   |
| **Vector Space** | x | x | x | x |   |   |   |   |   | x |   | x | x | x | x | x | x | x | x | x | x | x |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Algebra** | x | x | x | x | x | x |   |   |   | x | x | x | x | x | x | x | x | x | x | x | x | x |