

| Consensus |  |
|-----------|--|
| Number    | Object   |
| 1         | <i>atomic registers</i>  |
| 2         | <i>getAndSet(), getAndAdd(), Queue, Stack</i>  |
| $\vdots$  | $\vdots$   |
| $m$       | <i><math>(m, m(m + 1)/2)</math>-assignment</i>   |
| $\vdots$  | $\vdots$   |
| $\infty$  | <i>memory-to-memory move, compareAndSet(), load-linked/store-conditional<sup>a</sup></i> |

<sup>a</sup> See Appendix B for details.

**FIGURE 6.1** Concurrent computability and the universality hierarchy of synchronization operations.