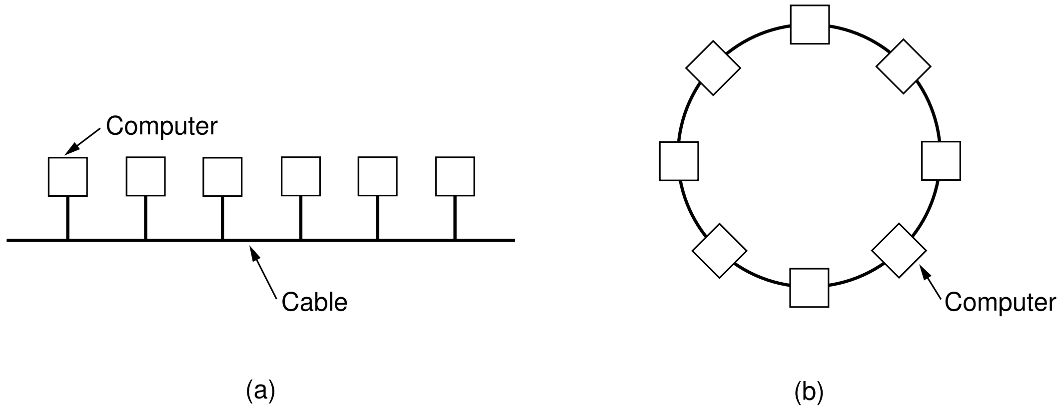
Local Area Networks (LAN)

Apart from scale, LANs distinguish themselves from other networks by (generally) using **broadcast** technology, and having simple **topologies**:



(a) Bus-based: all computers are connected to the same wire. When one of them starts sending, the signal is propagated to all others. If two of them start sending at the same time, packets collide and rubbish is the result.

(b) Token-based: a token (which is just a small packet) *continuously* circulates along the ring. A sending computer (1) waits until the token passes and removes it (2) sends its packet along the ring, (3) waits until the packet returns and (4) reinserts the token.