Moore's Law: Even though Moore's Law is not actually a law, but it defines as the act of doubling transistor density would every 2 years. Moore's Law is more of a prediction about future, than law. This proposition is not correct for today's conditions, and the physical limitations are:

- Transistors consume power when they switch, and this power consumption leads to high temperature. High temperature need more, bigger better fans that use more power or take bigger spaces.
- Voltage can't go too low according to Dennard Scaling, because of the noise.
- The frequency can not increase limitlessly due to the limit speed of light.