

- 3.5 *Assume scientists have developed a chip having perfect transistors and wires with no resistance, meaning signals within this chip can travel at the speed of light, or 3×10^8 meters/second. Assuming our digital circuit has a width of 25 mm and a height of 25 mm, compute the clock period and clock frequency, where the longest distance any signal must travel during a single clock period is:
- a. one eighth of the width of the circuit
 - a. one half the height of the circuit
 - b. the width of the circuit
 - c. diagonally across the circuit
 - d. the perimeter of the circuit.