

1. What is the cost per die of the chip?

Answer:

$$\text{Cost per die} = \frac{\text{Cost per wafer}}{\text{Number of dies per wafer} \times \text{Yield}}$$

2. What is the number of dies per wafer?

Answer:

$$\text{Dies per wafer} = \frac{\text{Area of wafer}}{\text{Area of die}}$$

3. What is the yield of chips?

Answer:

$$\text{Yield} = \frac{1}{\left(1 + \frac{\text{Defects per area} \times \text{Area of die}}{2}\right)^2}$$