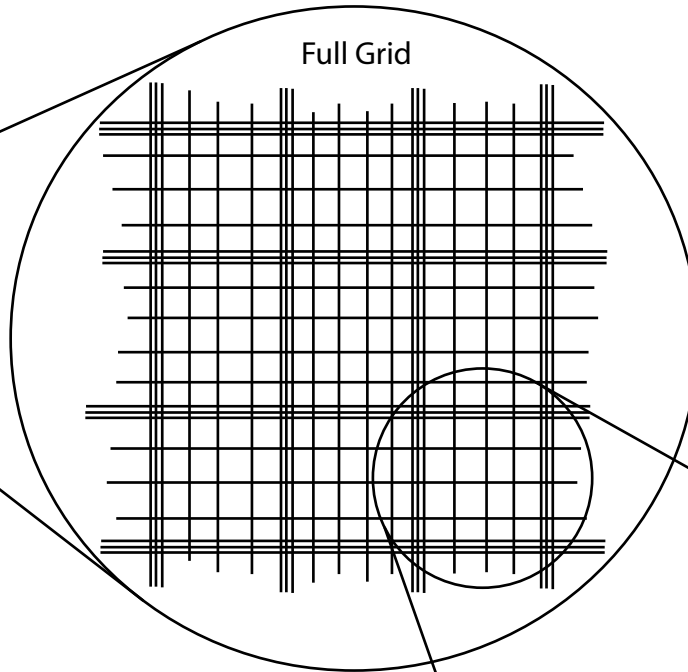
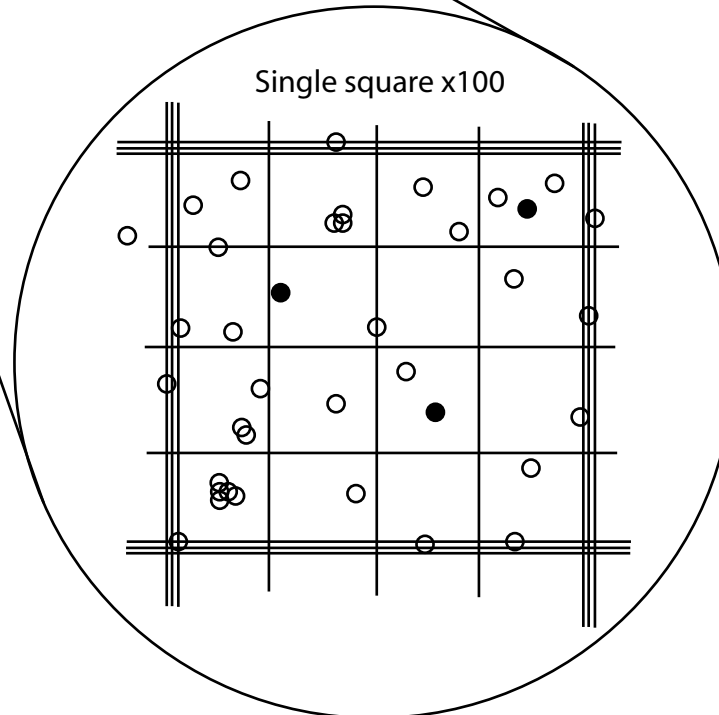


Haemocytometer



Full Grid



Single square x100

Example calculation for 10 ml of cell suspension:

$$\begin{array}{r} 270 (7)/4 \\ 290 (5)/4 \\ \hline 280 (6)/4 \end{array} \quad \begin{array}{l} \text{step 3; 4 single squares counted} \\ \text{dead cells in ( )} \\ \text{step 4} \end{array}$$

$$280/4 \times 2 = 140 \quad \text{step 5 diluted 1:1 in trypan blue}$$

$$= 140\,000 \text{ cells/ml} \quad \text{step 6}$$

$$1\,400\,000 \text{ cells/ml} \times 10 \text{ ml} = 14\,000\,000 \text{ cells total} \quad \text{step 7}$$

Procedure:

- 1) Mix cells with 1:1 with Trypan blue, incubate 1 min.
- 2) Load haemocytometer, mixing the cells before loading each side as they settle fast.
- 3) Count cells in each single square (can do less than 9 squares) counting only cells that are inside on top and left, not bottom and right to prevent double counting. Count both sides. Blue = dead
- 4) Average number of cells counted across both sides.
- 5) Divide average by number of single squares counted and multiply by dilution factor (2 if 1:1 with trypan blue).
- 6) Multiply by 10 000. This is the number of cells per ml.
- 7) Multiply cells per ml by number of ml of cell suspension will give total cell number.