

## Answer on Question #54221 – Chemistry – Other

### Question:

If  $5\text{cm}^3$  of  $1.5\text{ M}$  of  $\text{NaCl}$  is diluted to a final volume of  $5\text{dm}^3$ . What is its final concentration?

### Answer:

Formula is  $c_1V_1 = c_2V_2$ , where  $c_1$  – first concentration ( $1.5\text{ M}$ ),  $c_2$  – second concentration,  $v_1$  – first volume ( $5\text{cm}^3$ ),  $v_2$  – second volume ( $5\text{dm}^3$ ).

$$c_2 = c_1v_1/v_2 = 1.5\text{M} \times 0.005\text{dm}^3/5\text{dm}^3 = 0.0015\text{M}$$