# Answer to Question #51864, Chemistry, Other

the concentration of the pure HCl used in a chemical reaction is
$11.2cm^3$
V1
of 11.7 molar of
C1
of HCl is diluted to
$250cm^3$
V2
, then the new concentration C_{2} will be _____.

1.936molesdm−3

0.936molesdm−3

0.125molesdm−3

1.125molesdm−3

**Solution**:

$$c_1 \times V_1 = c_2 \times V_2$$
$$c_2 = \frac{c_1 \times V_1}{V_2}$$
$$c_2 = \frac{11.2 \times 11.7}{250} = 0.52416\ M$$

**Answer**:
**0.52416 M**