Answer to Question #62203, Chemistry / Other

What volume of 1.75% (w/v) glucose can be prepared from 500g of glucose?

Answer:

Diluted solution, density ≈ 1.

$$w = \frac{m_{glucose}}{V_{solution}}$$

$$V_{solution} = \frac{m_{glucose}}{w} = \frac{500\ g}{0.0175\frac{g}{mL}} = 28571.4\ mL = \mathbf{28.6\ L}$$