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Solution: In this type of problem we assume that we have 1 L of solution. Therefore the density tells us that the total mass is 952 gm. In order to calculate the number of moles of solute,

$$n_2 = \frac{x_2}{x_1 M_{m,1} + x_2 M_{m,2}} m_{total}$$

We need the molar mass of THF.

$$M_{m,2} = 4(12) + 8 + 16 = 72 \text{ amu}$$

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We substitute these values in and calculate the number of moles of solute in 1 L (which is the molarity).

$$n_2 = \frac{0.3}{(0.7)(18) + (0.3)(72)} 952$$

Which gives  $n_2 = 0.35$  moles per liter or 0.35 M.