

## 3 Solutions, concentration, and separation – Part 2 —Answers

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### Answers

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Work through these after you have tried the questions yourself.

**2.1**  $M = \frac{0.20}{0.50} = 0.40 \text{ M.}$

**2.2**  $V_2 = \frac{M_1 V_1}{M_2} = \frac{3.0 \times 100}{1.0} = 300 \text{ mL.}$

**2.3** (a) filtration; (b) distillation.

**2.4** oil is non-polar and water is polar; "like dissolves like", so the two do not mix and the oil stays separate.

**2.5** the number of moles of solute (only the volume and concentration change).