

1. Calculate the osmotic concentration of the 0.9% (w/v) physiological (normal) saline solution. (*Answer: 283 mOsm/L*)
2. Calculate the osmotic concentration of the 5% (w/v) glucose solution. (*Answer: 278 mOsm/L*)
3. Calculate the osmotic concentration of a Ringer's lactate solution that contains 6 g NaCl, 0.4 g KCl, 0.27 g CaCl₂, 3.2 g Na-lactate in 1000 mL. (*Answer: 261 mOsm/L*)

Molar mass table

Substance	Molar mass (g/mol)
NaCl	58.44
KCl	74.55
CaCl ₂	110.98
Na-lactate	112.06
glucose	180.16

Osmotic coefficient table

Substance	osmotic coefficient
NaCl	0.92
KCl	0.92
CaCl ₂	0.85
Na-lactate	0.98
glucose	1.00