

At the top of the clay layer the decrease in pore water pressure is $4\gamma_w$. At the bottom of the clay layer the pore water pressure remains constant. Hence at the centre of the clay layer,

$$\Delta\sigma' = 2\gamma_w = 2 \times 9.8 = 19.6 \text{ kN/m}^2$$

The final consolidation settlement (one-dimensional method) is

$$s_c = m_v \Delta\sigma' H = 0.83 \times 19.6 \times 8 = 130 \text{ mm}$$