

2.8

2.8 What pressure, expressed in pascals, will a skin diver be subjected to at a depth of 40 m in seawater?

$$p = \rho h + p_0$$

At the surface $p_0 = 0$ so that

$$p = (10.1 \times 10^3 \frac{N}{m^3})(40 m) = 404 \times 10^3 \frac{N}{m^2} = \underline{\underline{404 \text{ kPa}}}$$