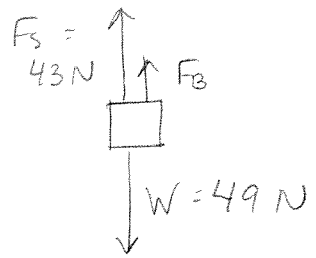
P #B

Ch 9 Worksheet

$m = 5.0\ kg$

$F_S = 43.0\ N$



$W = m \cdot g$

$= (5\ kg)(9.8\ m/s^2)$

$W = 49\ N$

$F_S + F_B = W$

$43\ N + F_B = 49\ N$

$F_B = 6.0\ N$

$F_B = \rho \cdot V \cdot g$

$6.0\ N = (1000\ kg/m^3) \cdot V \cdot (9.8\ m/s^2)$

$\boxed{V = 6.12 \times 10^{-4}\ m^3}$