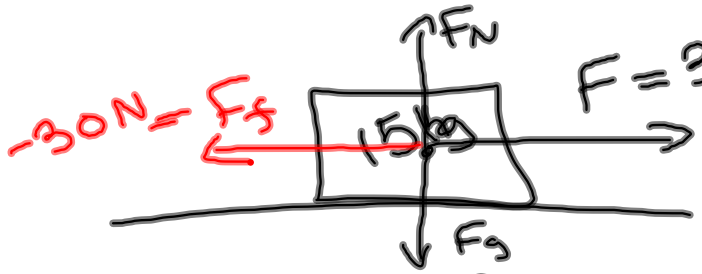


$\mu_s = 0.48$

$F_N = F_g = m(9.8)$

$F_N = 15(9.8)$

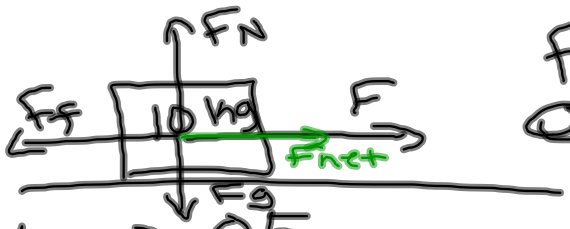
$F_N = 147\,N$

$F_f = \mu F_N$

$F_f = (0.48)(147N)$

$F_f = 70.56\,N$

$F_f = \mu F_N$



$F = ?$

$a = 0.4\ m/s^2$

$\mu_k = 0.05$

$\sum F = ma$

$F_N = -F_g$

$F_f + F = ma$

$F_N = 10(9.8) = 98N$

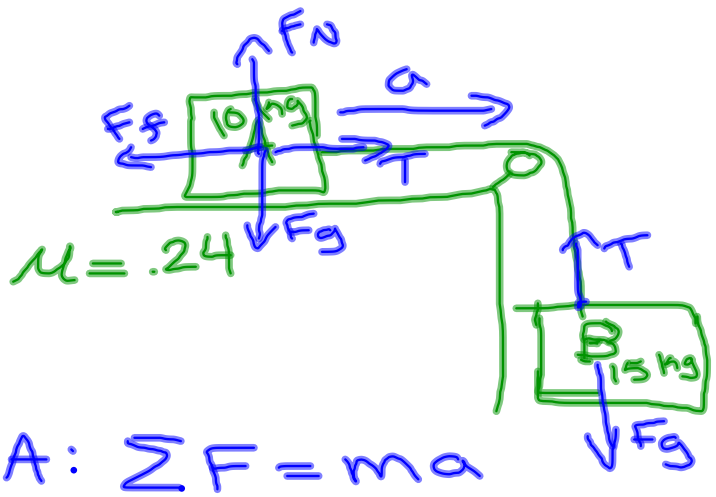
$F_f = \mu F_N = 0.05(98N) = 4.9\ N$

$= -4.9 + F = 10(.4)$

$-4.9 + F = 4$ ← F_{net}

$+4.9$

$F = 8.9N$



Tensions are same

Acceleration same

A: $\sum F = ma$

$F_f + T = m_a a$

$-23.52 + T = 10a$

$F_f = \mu F_N$

$F_f = \mu mg$

$F_f = 0.24 \cdot 10 \cdot 9.8$

$F_f = 23.52\ N$

B: $\sum F = ma$

$F_g + T = m_b a$

$m = 15\ kg$

$-15(9.8) + T = 15(-a)$

$-23.52 + T = 10a$

$-147 + T = -15a$

$T = 10a + 23.52$

$-147 + 10a + 23.52 = -15a$

$-10a \quad\quad -10a$

$-123.48 = -25a$

$a = 4.94\ m/s^2$