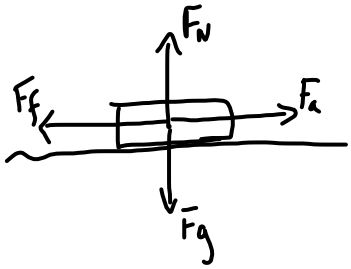
pp 144

7. $m = 2.00 \times 10^2 \text{ kg}$

$\mu_s = 0.10$ (ice on ice)

F_f (static) = ?

On Mt. Everest $g = 9.7647 \text{ m/s}^2$



$F_f = \mu F_N$

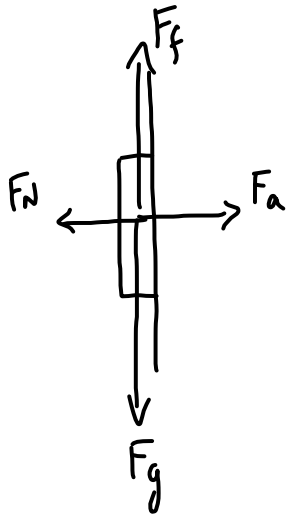
$F_f = \mu F_g$

$F_f = \mu mg$

$F_f = (0.10)(2.00 \times 10^2 \text{ kg})(9.7647 \text{ m/s}^2)$

$F_f = 2.0 \times 10^2 \text{ N}$

8.



If the book is not moving and you push just hard enough to stop the book from slipping:

$F_N = F_a = 63 \text{ N}$ ← F_N

$F_f = F_g = (2.2 \text{ kg})(9.81 \text{ m/s}^2)$

$= 21.582 \text{ N}$ ← F_f

$F_f = \mu F_N$

$\mu = \dfrac{F_f}{F_N}$

$\mu = \dfrac{21.582 \text{ N}}{63 \text{ N}}$

$\mu \doteq 0.34$

Chapter 5 - Newton's Laws

Thought Experiments (p 153)

	A	B	C	D
1	0	6	9	4
2	0	0	0	16
3	2	6	1	7

??

inertia