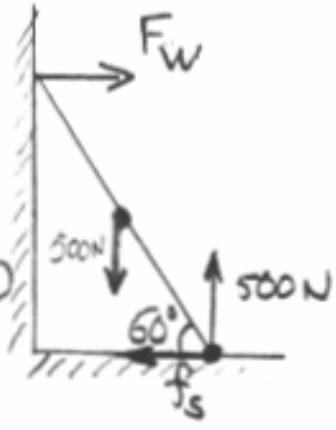
9) What is the force exerted on the ladder by the wall?

a) 500 N
b) 267 N
c) 976 N
(d) 144 N
e) 421 N

$\tau_{NET,\,GROUND} = (500)(5\cos 60^\circ)$

(+) $-F_w(10\sin 60^\circ) = 0$

$F_w = 250\left(\frac{\cos 60^\circ}{\sin 60^\circ}\right) = 144\ N$



10) What is the **minimum coefficient of static friction** that prevents the ladder from slidding?

a) 0.9
b) 0.2
c) 0.5
d) 0.4
(e) 0.3

$f_s \leq F_s^{MAX} = (500\ N)\mu_s$

Setting $f_s = F_s^{MAX}$

and $f_s = F_w = 144\ N$

$\longrightarrow \mu_s = \frac{144}{500} \simeq 0.3$