To do ...

- **CBTF Quiz 5** – this week!

- Matlab session – Thurs Nov 2, 5-6 pm, location TBD

- WA2 has been regraded, thanks for the feedback

- Homework grade distribution
  - Online + written assignment = 18%

- 211 students **DO NOT TAKE** 210 final, or you will get a zero on 211 final

- HW 18 due **Wed**

- HW 19 due **Thurs**
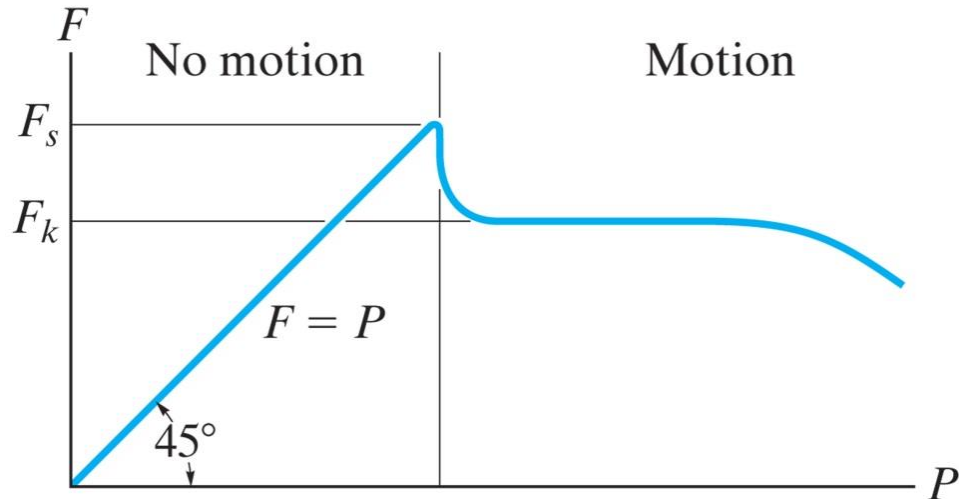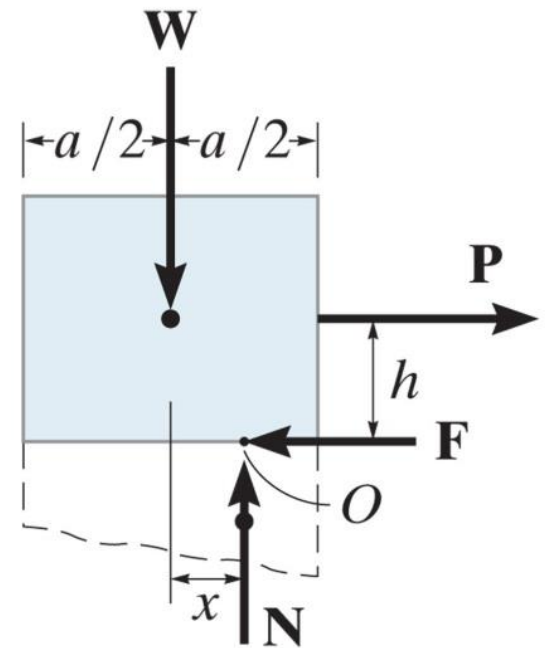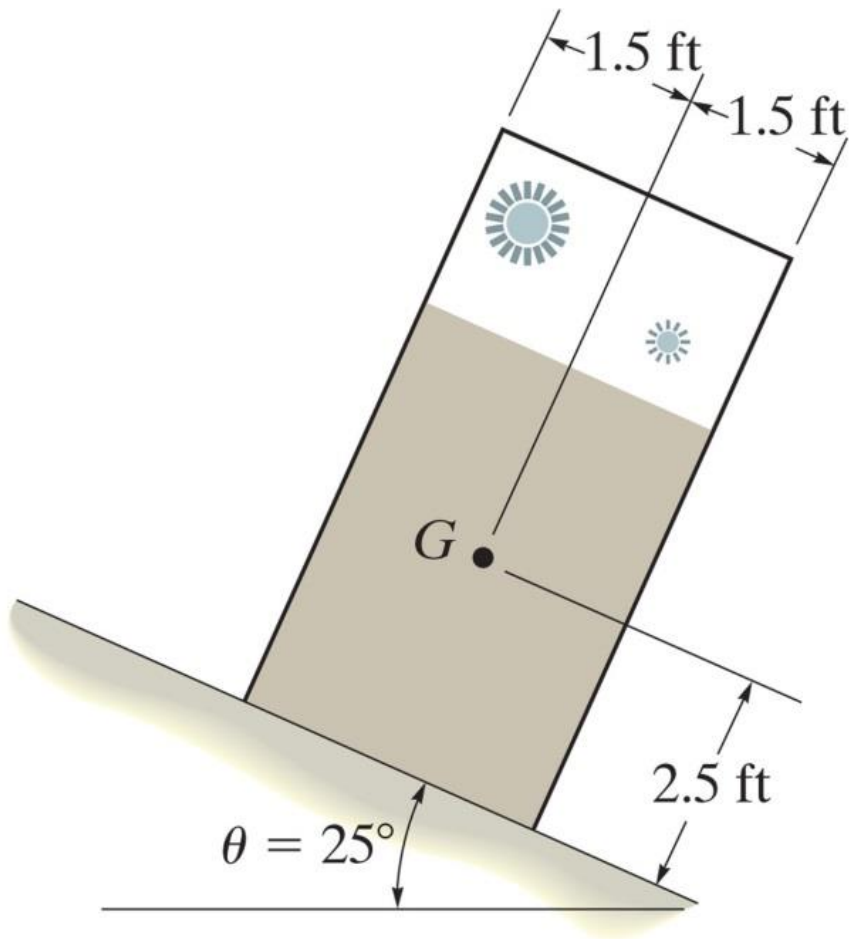
- WA 3 due **Fri**

Dry friction

W

$\vdash a/2 \dashv \vdash a/2 \dashv$

P

h

F

O

x N

F

No motion   Motion

F_s

F_k

$F = P$

45°

P

| Table 8–1 Typical Values for μ_s	
Contact Materials	Coefficient of Static Friction (μ_s)
Metal on ice	0.03–0.05
Wood on wood	0.30–0.70
Leather on wood	0.20–0.50
Leather on metal	0.30–0.60
Aluminum on aluminum	1.10–1.70

1.5 ft

1.5 ft

G

2.5 ft

$\theta = 25°$

It is observed that when the bed of the dump truck is raised to an angle of $\theta = 25^o$ the vending machines will begin to slide off the bed. Determine the static coefficient of friction between a vending machine and the surface of the truck bed.
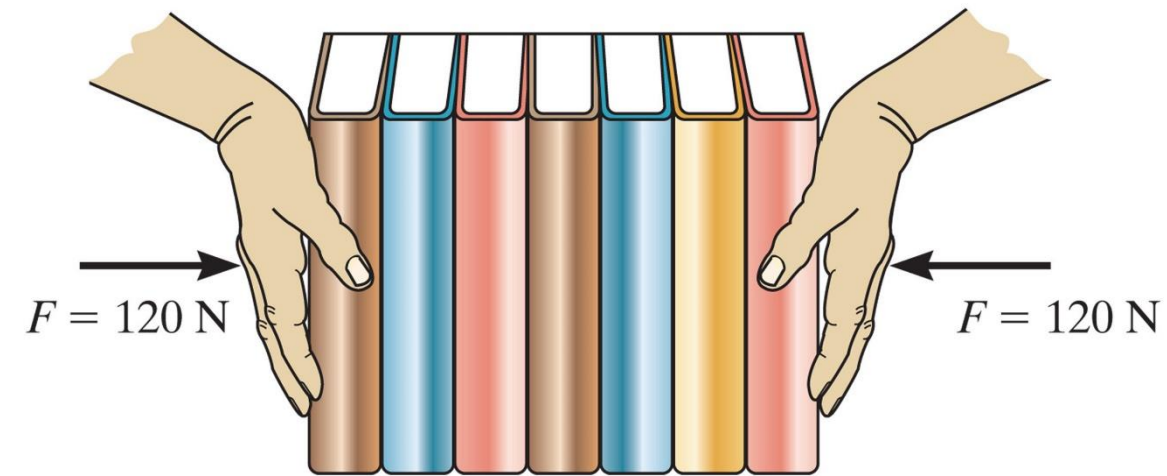
1.5 ft | 1.5 ft

P →

4.5 ft

2.5 ft

3.5 ft

G

A
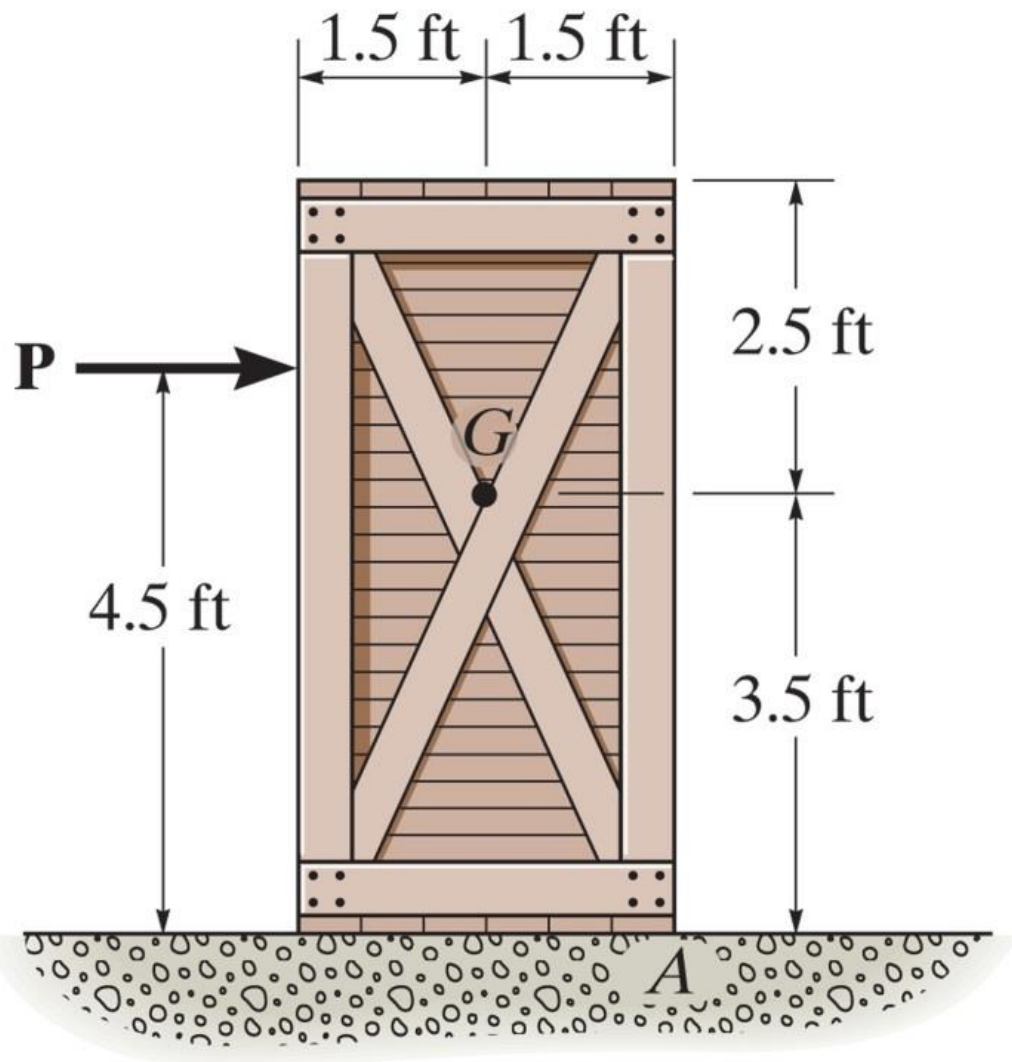
Find the maximum force P that can be applied without causing movement of the crate.

If it is placed against the smooth wall and on the rough floor in the position, d=10 ft, will it remain in this position when it is released?

B

26 ft

A

d

$F = 120$ N $\qquad$ $F = 120$ N
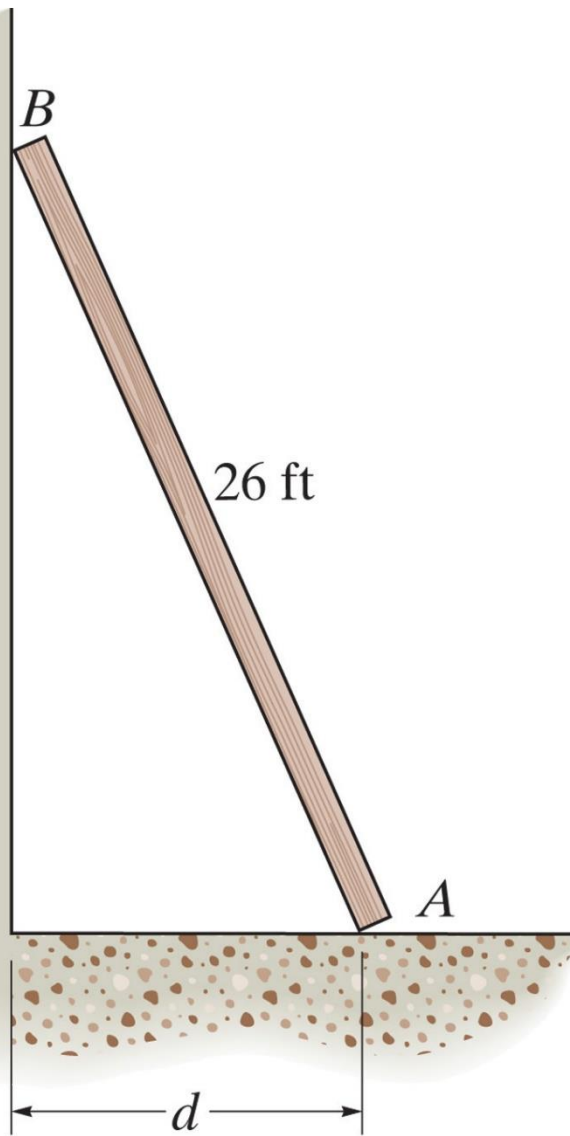
Determine the greatest number of books that can be supported in the stack.