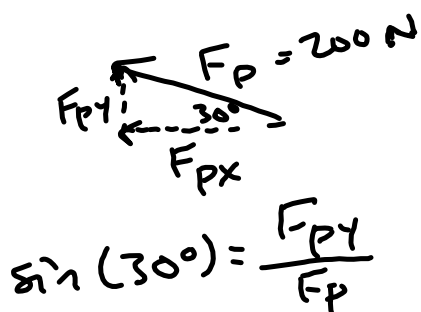
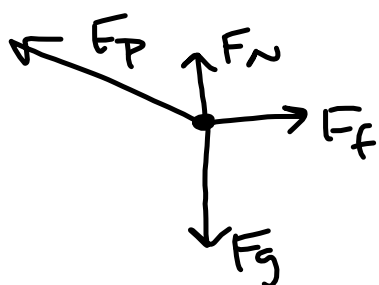
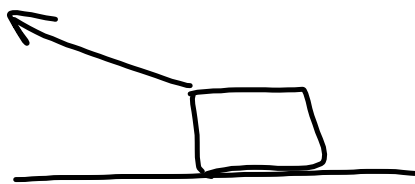


$$\sin(38^\circ) = \frac{F_{Ty}}{F_T}$$

$$\begin{aligned}
 F_T &= \frac{F_{Ty}}{\sin(38^\circ)} \\
 &= \frac{62.5\text{N}}{\sin(38^\circ)} \\
 &= 101\text{N}
 \end{aligned}$$

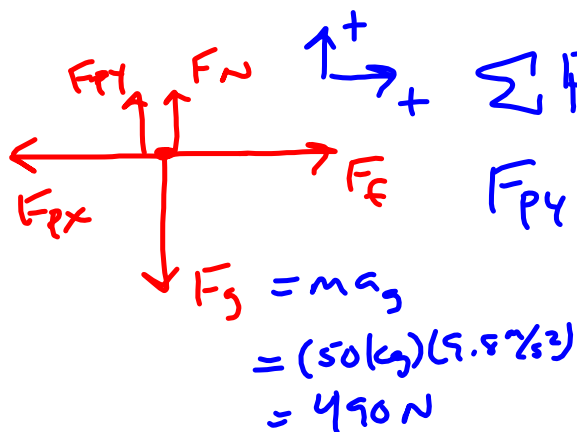
2)



$$\cos(30^\circ) = \frac{F_{px}}{F_p}$$

$$F_{px} = F_p \cos(30^\circ) \\ = 173 \text{ N}$$

$$\sin(30^\circ) = \frac{F_{py}}{F_p} \\ F_{py} = F_p \sin(30^\circ) \\ = (200 \text{ N}) \sin(30^\circ) \\ = 100 \text{ N}$$



$$\sum \vec{F}_y = 0$$

$$F_{py} + F_N - F_g = 0$$

$$F_N = F_g - F_{py}$$

$$= 490 \text{ N} - 100 \text{ N}$$

$$= 390 \text{ N}$$

$$\sum \vec{F}_x = 0$$

$$F_f - F_{px} = 0$$

$$F_f = F_{px}$$

$$= 173 \text{ N}$$

GRADING

- Tests

$\geq 70\%$ → corrections for
 $\frac{1}{2}$ points back

$< 70\%$ → mandatory retake
to replace score
(up to 90%)

- Quiz

$\geq 80\%$ → corrections for
 $\frac{1}{2}$ points back

$< 80\%$ → mandatory retake
to replace
(up to 90%)