

3.06A Answer KEY

1. $F_N = 150 \text{ N}$; $F_f = 0$
2. Same, speed constant
3. $F_N = 100 \text{ N}$; $F_f = 60 \text{ N}$
4. Same, speed constant
5. $F_N = 70 \text{ N}$; $F_f = 40 \text{ N}$
6. $F_N = 70 \text{ N}$; $F_f = 25 \text{ N}$ to the right
7. $F_N = 120 \text{ N}$; $F_f = 160 \text{ N}$ it's unrealistic b/c $F_f > F_N$
8. No change, speed constant
9. $T = 5000 \text{ N}$; $F_N = 8660 \text{ N}$
10. F_N still = 8660 N ; F_f acting up incline at 4700 N
11. As large as 5000 N up the incline to an unknowable value down the incline.