Forces on crate Problems

1. Σ Fy = 0 = N – mg ΣFx= ma = T – *f*

N = mg = (40 kg)(9.8)= 392 40 a = 85 N – 25 N

 A = 60/40 = 1.5 m/s2



1. 2. Σ Fy = 0 = N – mg ΣFx= ma = T – *f*

N = mg = (40 kg)(9.8)= 392 40 a = 75 N – 35 N

 A = 40/40 = 1.0 m/s2



1. Σ Fy = 0 = N – mg ΣFx= ma = T – *f*

N = mg = (60 kg)(9.8)= 588N 60 a = 75 N – 35 N

 A = 40N/60 kg = 0.67 m/s2



1. Σ Fy = 0 = N – mg ΣFx= ma = T – *f*

N = mg = (55 kg)(9.8)= 539 40 a = 125 N – 40 N

 a = 85/55 kg = 1.54 m/s2



