**PUTTING IT ALL TOGETHER PRACTICE QUESTIONS**

1. A girl with a mass of 52 kg is rollerblading on a surface with a coefficient of kinetic friction of 0.12. If she exerts a force of 100 N, determine her acceleration.
2. A 65 kg runner accelerates at a rate of 3.4 m/s2, on a track with a coefficient of friction of 0.55. Determine the applied force of the runner.
3. A helicopter has a mass of 6400 kg applies an upward force of 75000N [up]. Determine the acceleration of the helicopter.
4. A box with a mass of 15 kg is pushed along the floor and accelerates at a rate of 0.5 m/s2. The coefficient of kinetic friction between the box and the floor is 0.33. Determine the applied force.
5. A 75 kg cyclist accelerates at a rate of 5.0 m/s2 and exerts an applied force of 400 N. Determine the coefficient of friction between the tires and the road.