Practice Problems

Do all work in your journal. Be sure to list givens and unknowns, draw an FBD, write an equation for net force, and solve in the appropriate format.

1. A rocket sled with a mass of 240 kg has an applied force of 130N. If the coefficient of friction between the sled and the snow is 0.10, what is the sled's acceleration?



2. A 4N box skids to a halt. If the coefficient of friction between the box and the floor is 0.45, what is it's acceleration?



3. A rocket sled that weighs 3000N roars up a hill with an incline of 14 degrees. If the applied force is 950N and the coefficient of friction is 0.12, what is the sled's acceleration?



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