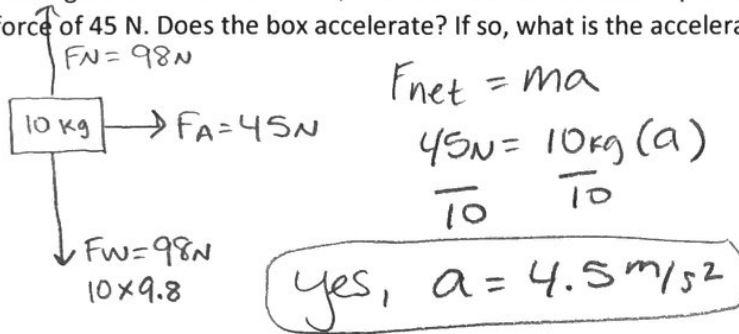
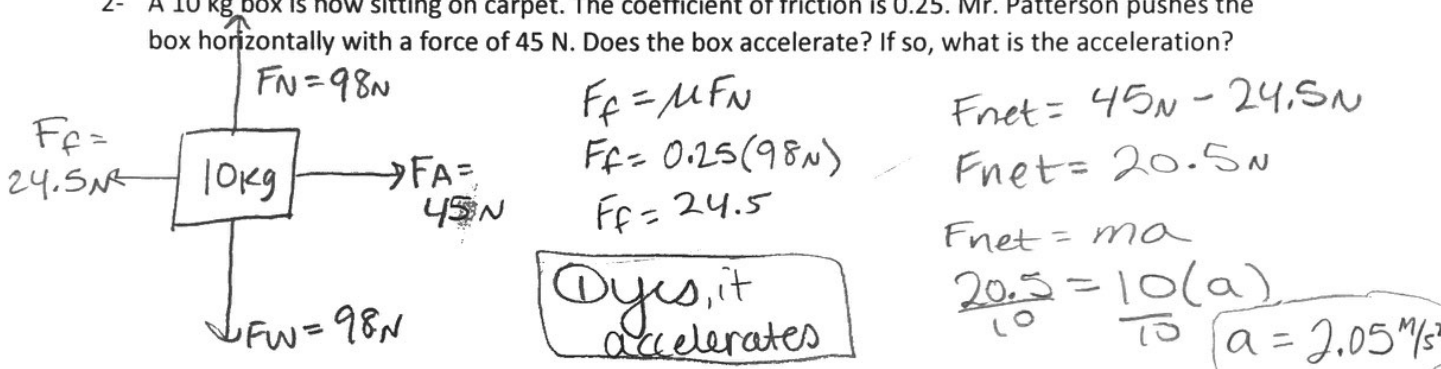


Practice Problems- Forces on a Level Surface

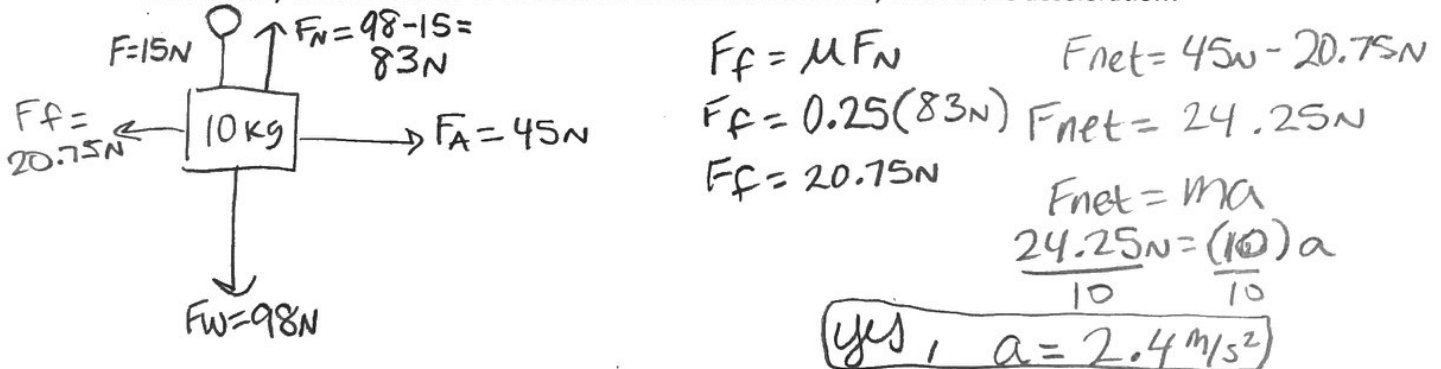
- 1- A 10 kg box is on a frictionless, level surface. Mr. Patterson pushes the box horizontally with a force of 45 N. Does the box accelerate? If so, what is the acceleration?



- 2- A 10 kg box is now sitting on carpet. The coefficient of friction is 0.25. Mr. Patterson pushes the box horizontally with a force of 45 N. Does the box accelerate? If so, what is the acceleration?



- 3- A 10 kg box is sitting on carpet. The coefficient of friction is 0.25. Mr. Patterson ties a balloon to the box. The force the balloon applies on the box is 15 N. Mr. Patterson pushes the box horizontally with a force of 45 N. Does the box accelerate? If so, what is the acceleration?



- 4- A 10 kg box is sitting on carpet. The coefficient of friction is 0.25. Mr. Patterson pushes the box with 45 N of force at an angle of 30° to the horizontal. Does the box accelerate? If so, what is the acceleration?

