4a.) A little girl pulls on a 10 kg wagon with a force of 60 N. The wagon handle she is pulling on is at an angle of 30° to the horizontal. What is F_x?

4b.) What is the acceleration of the wagon?

4c.) What is the normal force on the wagon?

5a.) Eskimo Joe is dragging a sled full of supplies across the snow. The sled along with supplies has a combined weight of 1800 N. The sled / snow contact produces a frictional force of 400 N. Joe is pulling with a force of 750 N on a rope attached to the sled at an angle of 20° with the horizontal. What is Joe and the sleds acceleration?

5b.) Say Joe can only keep this up for 12 seconds. How far will he go in those 12 seconds?

5c.) What will be his velocity at the end of this 12 seconds?

5d.) If Joe then reduces his force to 425.671109 N and keeps the rope at the same angle. Now what is the sled's and Joe's acceleration?

5e.) If he keeps this new force for 15 seconds, how far will he and the sled continue on from the point at which he reduced his force?