Name_____

Show your work, round to the correct significant figures, circle your answers, and label them with units. Every force should be labeled "Right" or "Left", and every acceleration should be labeled as "accel" = "acceleration" (speeding up) or "decel" = "deceleration" (slowing down)

When you have finished this, go to the website and check your answers. If you got a problem wrong, cross it off on the front, and do it correctly on the back.

A 4.25 kg block of wood has a kinetic coefficient of friction of 0.120 between it and the level floor.

(Find the static and kinetic friction in this space)

1. If the block is sliding to the right, and I exert a force of 7.80 N to the right, what is the acceleration of the block?

2. If the block is sliding to the left, and I exert a force of 3.50 N to the right, what is the acceleration of the block?

3. If the block is sliding to the right, and accelerating to the right at 2.35 m/s/s, what must be the outside force acting on the block?

4. If the block is sliding to the left, but is decelerating at 3.12 m/s/s, what must be the outside force acting on the block?

5. If the block is initially sliding to the right at 3.50 m/s, and stops in a distance of 1.50 m, what outside force acted on the block as it was stopping?