Physics
FA 4.3 - Friction

Name_____ (Do this before the test, **grade it** and **correct it** on the website, turn it in before the test)
Show your work, round to about three digits total, circle your answers, and label them with units.
Label every force **right** or **left**; Label every acceleration as either **accel** - speeding up or **decel** - slowing down
A 4.25 kg block of wood has a kinetic coefficient of friction of 0.120 and a static of 0.330 between it and the level floor.
0. Calculate the **kinetic friction force**, and the **maximum static friction force**. If the block were at rest, and you exerted a force to the right of 15.0 N, **would the block begin to move**? What if the force was 12.0 N? Support your answer with numbers.

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?