## **Basic Friction:**

(1-4) A 6.80 kg block of wood has a static coefficient of 0.340 and a kinetic of 0.170 between it and a desk.

1. Calculate the maximum force of static friction

2. Calculate the force of kinetic friction

3. If the block is at rest, and I exert a force of 27.0 N to make it move, does it slide? Why or why not? Explain your answer with numbers and words.

4. If the block is at rest, and I exert a force of 20.0 N to make it move, does it slide? Why or why not? Explain your answer with numbers and words.

5. If the box is sliding to the right and there is a force of 11.0 N to the right, what is the acceleration of the box?

6. If the box is sliding to the right, and there is a force of 5.00 N to the right, what is the acceleration of the box?

7. If the box is sliding to the left, and there is a force of 23.0 N to the left, what is the acceleration of the box?

8. If the box is sliding to the left, and there is a force of 4.00 N to the right, what is the acceleration of the box?

9. What outside force would cause it to slide to the right, and accelerate to the right at 5.90 m/s/s?

10. What outside force would cause it to slide to the right and decelerate at 1.80 m/s/s?

11. What outside force would cause it to slide to the left and accelerate left at 2.70 m/s/s?

12. What outside force would make it slide to the left and decelerate at 5.00 m/s/s?