Name

 Date

Friction (Static & Kinetic)

1) What is the difference between mass and weight?

2) What is the formula for weight (on Earth)?

3) What is the difference between static friction and kinetic friction?

4) A 2.0 kg wooden block is sitting on a table.

a) Calculate the normal force acting on the block. (Remember Fag is the opposite of FN)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DIAGRAM | UNITS | FORMULA | ALGEBRA | SOLVE |

 b) Calculate the maximum force of static friction and compare it to applied force. (u= Ff / FN) (coefficient of static friction for wood is 0.42)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

 c) Calculate the force of kinetic friction. (uk= Ff / FN) (coefficient of kinetic force for wood is 0.30)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

5) A 5.0 kg copper block is sliding along a steel surface as it is pulled with a force of 50 N.

 a) Calculate the force of friction acting on the block as it is being pulled. (Coefficient of friction for copper is 0.36)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

 b) Calculate the net force on the block and its resulting acceleration.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |