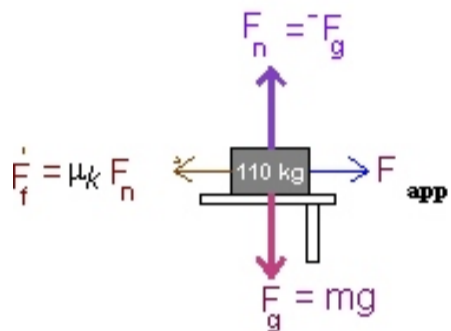


NEWTON'S LAWS

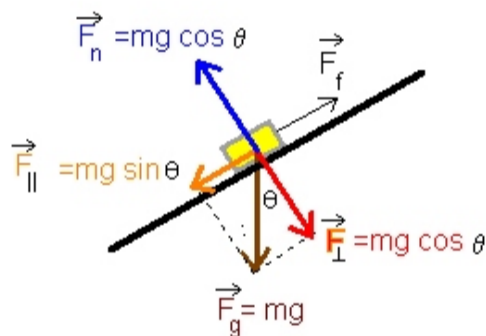
UNIT 1- SECTION 2

PHYSICS 3204

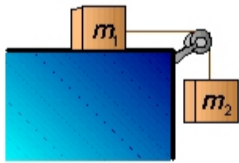
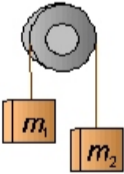
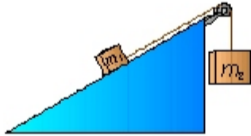
- Remember Newton's Laws
 - Newton's first Law of Inertia (Inertia = Mass)
 - Newton's Second Law ($F_{\text{net}} = ma$)
 - Newton's Third Law (Action Reaction)
- FBD for an object on the horizontal



- FBD for an object on an incline plane



- Strings and pulley's (3 types)

<p>1) Block and string</p> 	<p>2) Atwood's Machine</p> 	<p>3. String/pulley on an incline</p>  <p>Note there are more than one kind of these.</p>
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- use Newton's Second Law to solve these problems
- typically to find the acceleration of the system use $F_{\text{net}} = m_{\text{total}} a$
- For the tension, draw a free body diagram for one mass