# Physics 112

### Monday, April 8/19



- 1. Return: FA FBDs -> See Next Page
- 2. Questions?

Worksheets:

Problems for Understanding (PFU) Page 151, #26-28, 30-32, 34 Practice Problems (PP) - C4, Page 144: 5-8

- 3. FA: First Law Problem Tomorrow
- 4. Newton's Second Law of Motion (Law of Force, Mass and Acceleration)
- 5. Second Law Problems Three Types
- 6. Second Law Problems Examples

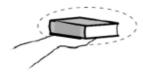
Physics 112

Name -

### Formative Assessment - Free Body Diagrams (D1.9)

Draw a free body diagram for the book in each scenario.

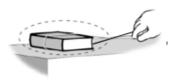
a) A book is supported by your hand.



b) A book is pushed across a desk at a constant speed by your hand.

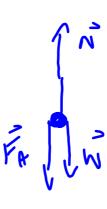


 A book pulled by a string accelerates across a desk. Ignore friction.



d) Your hand pushes down on a book resting on a desk.







## Physics 122 Monday, April 8/19

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- FA Charges in a Line
   FA Charges Involving Angles
- 2. Questions?

Worksheet -> Textbook: Page 646, #11-14

Textbook: Page 655, #20-24

3. FA - Electric Field Strength ( phonul)

- 4. Review Gravitational Potential Energy
- 5. Electric Potential Energy
- 6. Electric Potential Difference
- 7. SA Electrostatics

Date: Thursday, April 11/19

Topics and Format - See Next Page

- 8. Unit 3 Electric Circuits
- 9. Potential Difference and Flowing Charge
  - Electron Flow
  - Conventional Current
- 10. Electric Current
- 11. Circuit Symbols
- 12. Ammeters vs. Voltmeters
- 13. Resistance to Flow of Charge
- 14. Factors Affecting Resistance in a Wire
- 15. Worksheet -> Textbook: C15, Page 708, #16-20

# Physics 122 Topics - U3 S1

- electrostatics
- types of charge (+ and -)
- transfer of charge
- Law of Conservation of Electric Charge
- electrostatic force (attractive/repulsive)
- Coulomb's Law: 2 charges, 3 charges
- electric fields: diagrams 1 source charge
  2 source charges
  2 charged plates uniform
- electric field strength/intensity
- electric potential energy: E<sub>O</sub> , joule
- electric potential difference (voltage): V, volt

Format: MC

#### **Problems**

- Coulomb's Law 2 charges
- Coulomb's Law 3 charges with angle
- Electric Field Strength
- Electric Field Strength

$$*q = N/e$$

## Science 122 Monday, April 8/19

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- 1. Return: SA Hydrodynamics
- 2. Moles and Molar Mass
- 3. Questions? Worksheet Half-Life, Activity and Decay Constant #1 and #2
- 4. Quantum Theory Video
- 5. Electron-volt
- 6. Frequency
- 7. Quantization of Energy

## Science 10 Monday, April 8/19

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- 1. FA Counting Atoms
- Questions?Worksheets Balancing Chemical Equations
- 3. Types of Chemical Reactions
- 4. Formation Reactions
- 5. Decomposition
- 6. Worksheet: Formation and Decomposition Reactions
- 7. Single Replacement Reactions
- 8. Double Replacement Reactions
- 9. Worksheet: Single and Double Replacement Reactions