

## Physics 112

Thursday, September 14/17

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### Bus Evacuation -> 10:15-10:30 Bus #2

1. **Assignment - Alphabetical Autobiography**  
- Check in by Friday, Sept. 15/17

2. FA - Conversions and Rearranging Equations

3. Summative Assessment - Basic Skills

- Topics

- Frid, 9/15/17.

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4. Concept Sheet -> Unit 1 - Section 1: Vector Analysis

5. Unit 1 - Learning Targets

6. Mechanics

7. Types of Physical Quantities

8. Vectors: Direction, Notation and Representation

9. Adding Vectors Graphically

10. Range of Resultant Magnitudes

11. Rubric: Vector Analysis

## Physics 112 - FA - Basic Skills #2 - S14/17

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1. Perform the following conversions. Use conversion factors in part (a). Show some work for part (b).

(a) Convert 0.0902 Gg to cg.

(b) Convert 45 m/s to km/h.

2. Rearrange each equation for the indicated variable.

(a)  $E_e = \frac{1}{2}kx^2$  [x]

(b)  $v_f^2 = v_i^2 + 2ad$  [a]

(c)  $\frac{b}{p} = \frac{s-1}{n+7}$  [n]

## SA: Basics Skills - Topics

1. physics - definition
2. physical quantity - definition
3. measurements - two parts
4. scientific notation
5. accuracy/precision - definitions, interpret scenario
6. significant digits - in a given measurement → units: m.m = m<sup>2</sup>  
 - Precision (+ and -) & Certainty (x and ÷) Rules
7. SI system - quantities and 7 base units (names/symbols) dd →  
 - derived units m/s, m/s<sup>2</sup> table
8. SI prefixes - names, symbols and powers of ten } conversion
9. metric conversions - 1 step pg to kg  
 - 2 steps ↑  
 - m/s ↔ km/h ↑
10. rearranging equations 10  $\frac{km}{h} \div 3.6 = \frac{m}{s}$

## Physics 122

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### FA - Push/Pull

1. Return Rated -> FA - Determine  $\vec{R}$ .
  2. Check -> Worksheet - Type II - Simple
  3. Example - Type II: Suspended Objects - Complex
  4. [Worksheet - Type II - Complex - HW](#)
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5. Type III - Inclined Plane Problems
  6. Examples - Type III: Inclined Plane Problems

**Formative Assessment - Pull Problem S14/17**

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A block is pulled along a horizontal surface by a string. The string makes an angle of  $30^\circ$  to the horizontal and is pulled by a 100 N force. If the coefficient of friction between the surface and block is 0.23, and the magnitude of the acceleration of the block is  $1.7 \text{ m/s}^2$ , what is the mass of the block? (25 kg)

# Science 10

Thursday, September 14/17

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1. **Assignment - Autobiographical Poem**  
Due: Friday, Sept. 8/17  
4 Days Late
2. **Assignment - Your Name in Chemical Symbols**  
- Due: Friday, Sept. 15/17
3. Ionic Bonds - P5
4. Simple Binary Ionic Compounds - P5
5. **Worksheet #2 - Simple Binary Ionic Compounds** \_\_\_\_\_ P5
6. Polyatomic Ions
7. Ionic Compounds Containing Polyatomic Ions
8. **Worksheet #3 - Ionic Compounds Containing Polyatomic Ions** \_\_\_\_\_ P4
9. Transition Elements
10. Multivalent Metals and Their Ions
12. Ionic Compounds Involving Multivalent Metals
13. Worksheet #4