Science 122

Wednesday, January 11/17

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Progress Reports - Any Changes?

1. Check -> Worksheet - Thermal Expansion
   Worksheet - Gas Laws
   Worksheet - Heat Engines and Carnot's Engine

2. SA - Thermodynamics (Only Problems)
   Friday, Jan. 13/17

3. Topic - Electrochemistry

4. Electrochemistry - Reduction Reactions and Reducing Agents
   Oxidation Reactions and Oxidizing Agents
   Generalizations

5. Single Replacement Reaction in Solution

6. Spontanous Reactions

7. Table of Redox Half Reactions

8. Redox Spontaneity Rule

9. Five Steps for Predicting Redox Reactions

10. Worksheet #64

Physics 112

Wednesday, January 11/17

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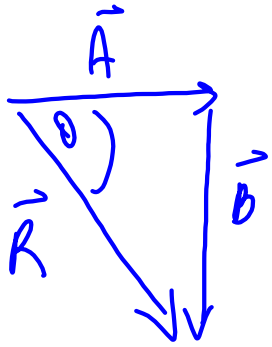
1. Progress Reports - Any Changes?
2. Exam Review: Problem #1
3. Electromagnetic Waves - To Be Continued
4. Parts/Regions of Waves
5. Amplitude
6. Wavelength
7. Frequency and Period
8. Wave Speed
9. Summary: Measures of a Wave
10. Worksheet - Frequency, Period and Wave Speed

Physics 112 - Exam Review: Problem #1
Wed., January 11/17

Two velocity vectors are 25.0 m/s [E] and 31.0 m/s [S]. Find their resultant analytically.

$\vec{A} = 25.0 \text{ m/s [E]}$

$\vec{B} = 31.0 \text{ m/s [S]}$



$R^2 = A^2 + B^2$

$R = \sqrt{A^2 + B^2}$

$R = \sqrt{(25.0)^2 + (31.0)^2}$

$R = 39.8 \text{ m/s}$

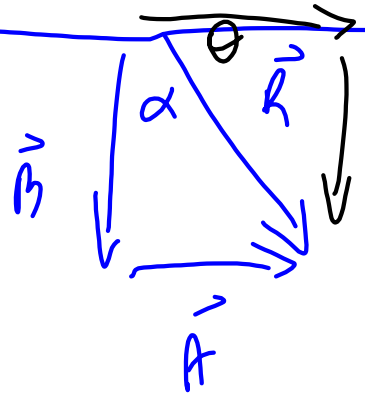
$\tan\theta = \frac{B}{A}$

$\tan\theta = \frac{31.0}{25.0}$

$\theta = 51.1°$

(10) $\vec{R} = 39.8 \text{ m/s}, 51.1° \text{ S of E}$

$[E\ 51.1°\ S]$



Physics 122

Wednesday, January 11/17

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Progress Reports - Any Changes?

1. Electrostatic Force - Continue

2. Coulomb's Law

3. Worksheet: Charge and Coulomb's Law
   Textbook - Page 638, #1-5

4. Electric Fields

5. Strength (Intensity) of an Electric Field

6. Worksheet -> Textbook: C14 Page 646, #11-14
   Textbook: C14 Page 655, #20-24

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7. Review - Gravitational Potential Energy

8. Electric Potential Energy

9. Electric Potential Difference

Science 10

Wednesday, January 11/17

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1. Roller Coasters - 1 Day Late
2. Food Chains - Continue
3. Food Webs
4. Energy Movement in Ecosystems
5. Trophic Levels
6. Assignment - Oh, What a Tangled Web
   - Due - Friday, Jan. 13/17

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7. Indicator Species
8. Optional: Article Review - Indicator Species
   - _____
9. Factors Affecting Ecosystems
10. Worksheet - Abiotic and Biotic Factors