Science 10
Monday, February 26/18

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1. Check
   Nomenclature Worksheet #4 - Ionic Compounds Containing
                                    Transition Elements

2. Recap: Types of Ions

3. Examples: Types of Ions

4. Worksheet #5 - Ionic Compounds Summary - Practice

5. FA - Ionic Compound Maze

6. Covalent Bonds

7. Diatomic Molecules

8. Prefixes Used When Naming Molecular Compounds

9. Rules for Naming Binary Molecular Compounds

10. Some Common Names

11. Worksheet - Binary Molecular Compounds #1
    Worksheet - Binary Molecular Compounds #2

12. Recap: Types of Compounds

13. Ionic Compounds vs. Molecular Compounds

14. Worksheet - Mixed Ionic/Covalent Compounds #1
    Worksheet - Mixed Ionic/Covalent Compounds #2

15. SA - Chem #1 - Topics

16. SA - CHem #1 -> _____

Physics 112
Monday, February 26/18

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1. Return -> SA - Basic Skills - Attempt #2

2. Return -> Justified FAs - Calculating **R** Analytically

3. Velocity-Time Graphs

4. Velocity-Time Graph: Direction of Motion

5. Velocity-Time Graph Calculations

6. Worksheets - Velocity vs Time Graphs
   -> V-T Graph #1 - Complete #5

Physics 122
Monday, February 26/18

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1. Worksheet - Force Problems: Type I, II and III
   Worksheet - Extra Type1, II, and III Force Problems

2. FA - Type I, II and III

3. Unit 1 - Section 2: Static Torque

4. Center of Mass

5. Types of Motion - Large Objects
      - Translational
      - Rotational

6. Torque

7. Torque - Examples

8. Net Torque

9. Static Equilibrium - Revisited

10. Type I - Static Torque - All Forces Vertical - To Be Continued

11. Worksheet - Static Torque #1

Force Prob: Type I, II, III.

11.

m = 10Kg.

$3T_y - W = 0$

$3T\sin 70° - mg = 0$

$T = \dfrac{mg}{3\sin 70°}$

$T = 35 N$

$T_y = 35\sin 70°$

$T_y = 33 N$

Science 122
Monday, February 26/18

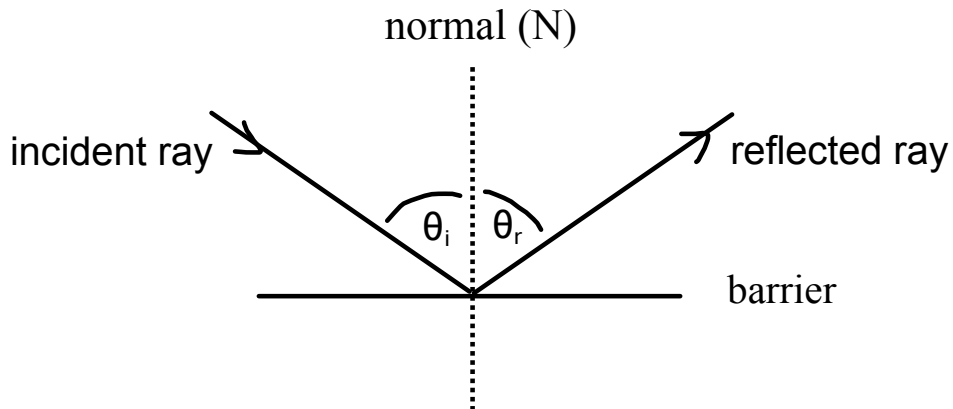http://mvhs.nbed.nb.ca/

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1. Check Review Concept and Application Questions from (old red)

2. SA: Optics - Tuesday, Feb. 27/18 or After the Break

2. Experiment 37 - Image Formation by a Converging Lens - P167

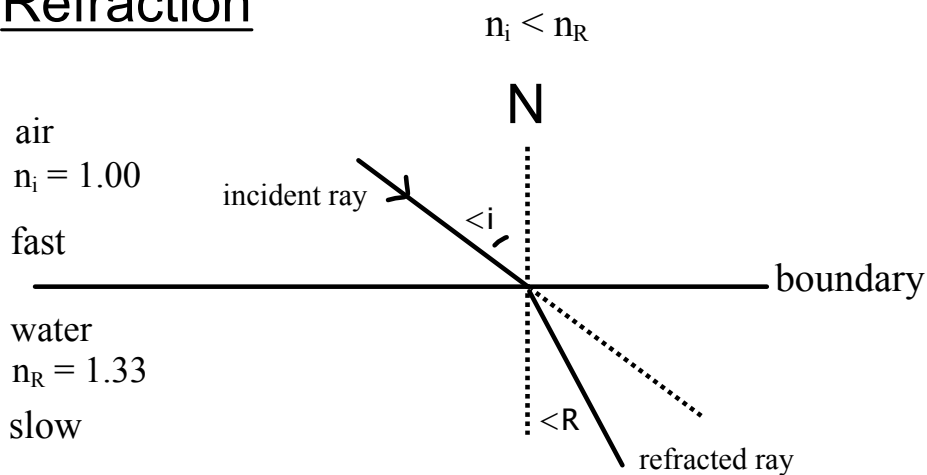3. Worksheets - Lenses in Combination

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Optics - Concepts

1. <u>Reflection</u>

normal (N)

incident ray   reflected ray

θ_i θ_r

barrier

<u>Law of Reflection</u>

$$\theta_i = \theta_r$$

2. <u>Refraction</u>

$n_i < n_R$

N

air
$n_i = 1.00$

incident ray

fast

<i

boundary

water
$n_R = 1.33$

slow

<R

refracted ray

$$n = \frac{c}{v}$$

$c = 3.00 \times 10^8 \, m/s$

<u>Snell's Law</u>

$$n_i \sin i = n_R \sin R$$

3. Plane (Flat) Mirrors

- labelled ray diagrams and POST

4. Spherical (Curved) Mirrors

Concave (Converging)

- 5 labelled ray diagrams and POST

Convex (Diverging)

- 1 labelled ray diagram and POST

5. Lenses

- 2 factors affecting focal length

Convex (Converging)

- 5 labelled ray diagrams and POST

Concave (Diverging)

- 1 labelled ray diagram and POST

① index of ref.

② shape of lens

6. Equations (Mirror/Lens and Magnification)

$$\frac{1}{f} = \frac{1}{d_i} + \frac{1}{d_O}$$

$$m = \frac{h_i}{h_o} = \frac{-d_i}{d_o}$$

$$R = 2f \quad or \quad f = \frac{R}{2}.$$

✱ Sign Conventions