

Science 10

Tuesday, April 3/18

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



<http://mvhs-sherrard.weebly.com/>



1. Check:

Worksheet: Single and Double Replacement Reactions

Worksheet: Combustion Reactions

2. Identifying Reactions Types

3. [Worksheet: Identifying Reaction Types](#)

4. SA Chem #2 - Topics

- [Complete Review](#)

- [Thursday, April 5/18](#) $\xrightarrow[\text{tomorrow}]{\text{if no school}}$ [Friday, April 6/18](#)

5. Translating Word Equations

6. Predicting Products

Physics 112

Tuesday, April 3/18

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



<http://mvhs-sherrard.weebly.com/>



1. Questions?

Worksheet - Motion Problems

Worksheet - Objects in Free Fall

Worksheet - Extra Uniformly Accelerated Problems

2. SA: U1-S3 - Topics

if no school

- Wednesday, April 4/18 $\xrightarrow{\text{tomorrow}}$ **Thurs., April 5/18**

Format: 6 Prob.

3. Unit 2 - Dynamics

4. Concept Sheet: U2 S1 - Introduction to Forces

5. Introduction to Forces

6. Applied Force

7. Force of Gravity

8. Worksheet - Practice Problems (PP) - C4 - Weight - Page 137: 1-4

9. Normal Force

10. Tension

11. Force of Friction

12. Handout - Coefficients of Friction

13. Free Body Diagrams

Physics 122

Tuesday, April 3/18

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



<http://mvhs-sherrard.weebly.com/>



1. Check:

Worksheet - Elastic and Inelastic Collisions

Worksheets - 2D Collisions and Explosions

2. FA - 1D Collision and Type

FA - 2D Explosion

3. SA - Unit 1 - S3&4

- Friday. Prob.-only.

Relative Velocity - Parallel Directions

Relative Velocity - Boat/Plane

Relative Velocity - Intersection

1D Collision/Explosion with Type

2D Collision

2D Explosion

Formative Assessment - 1D Collision and Type (DE4.1 and DE4.3)

A 92.0 kg football player running at 6.50 m/s south collides with an 85.0 kg football player running at 3.00 m/s north. The 92.0 kg football player continues moving at a velocity of 2.00 m/s south after the collision.

- a) What is the velocity of the 85.0 kg football player after the collision?
- b) What type of collision occurred? Justify your answer mathematically.

Formative Assessment: 2D Explosion (DE4.5)

A 5.0 kg bomb at rest explodes into three pieces, each of which travels parallel to the ground. The first piece, with a mass of 1.2 kg, travels at 5.5 m/s at an angle of 20° south of east. The second piece has a mass of 2.5 kg and travels 4.1 m/s at an angle of 25° north of east. Determine the velocity of the third piece.

Physics 122 - 2D Explosions

4. A 400 kg bomb sitting at rest on a table explodes into three pieces. A 150 kg piece moves off to the East with a velocity of 150 m/s. A 100 kg piece moves off with a velocity of 200 m/s $[30.0^\circ \text{ S of W}]$. What is the velocity of the third piece? $(75.1 \text{ m/s}, 62.6^\circ \text{ N of W})$

5. A bomb sitting at rest on a table explodes into four pieces of equal mass. The first piece travels to the South at a velocity of 55.0 m/s. The second piece travels to the West at a velocity of 80.0 m/s. The third piece travels at a velocity of 40.0 m/s $[30.0^\circ \text{ W of N}]$. What is the velocity of the fourth piece? $(102 \text{ m/s}, 11.5^\circ \text{ N of E})$

6. A 200 kg bomb moving at a velocity of 10.0 m/s to the West explodes into three pieces. The first piece has a mass of 100 kg and moves to the West with a velocity of 90.0 m/s. The second piece has a mass of 55.0 kg and moves at an angle of $30.0^\circ \text{ N of E}$ with a velocity of 55.0 m/s. What is the velocity of the third piece? $(103 \text{ m/s}, 19.0^\circ \text{ S of E})$

Science 122

Tuesday, April 3/18

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



<http://mvhs-sherrard.weebly.com/>



1. Check:

Worksheet - Pressure and Depth in a Static Fluid

Worksheet - Archimedes' Principle

Worksheet - More Hydrostatic Fluid Problems

Worksheet - Section 11.8 - The Equation of Continuity

Worksheet - Section 11.9 - Bernoulli's Equation

Worksheets - Fluids - Continuity and Bernoulli's Equations

2. SA - Fluid Mechanics

- Your Choice: Thursday or Friday - 6 or 7 Problems

pressure

hydrostatic fluid

~~Pascal's Principle~~

~~partially submerged object~~

apparent weight

completely immersed object

mass flow rate

continuity equation

volume flow rate

Bernoulli equation