Physics 112

Monday, October 23/17

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1. Return Marks -> SA: U1- S3
   -> Four still to write.
2. Check -> Worksheet - Weight (PPs from Text)
3. Formative Assessment - Weight Problem
4. Normal Force
5. Tension
6. Force of Friction - To Be Continued

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7. Free Body Diagrams (FBDs)
8. Worksheet - FBDs

Formative Assessment - Weight Problem (O23/17)

A space ship has a weight of magnitude 8.82×10^4 N on the surface of the Earth. The space ship is launched from Earth and lands on a distant planet where it has a weight of magnitude 3.90×10^5 N. What is the acceleration due to gravity on this planet?

Physics 122

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1. SA - U1: S3&4 -> Tuesday, October 24/17
   -> Format: MC (max 10) and 4 Problems

2. Questions re Relative Velocity or 1D/2D Collisions/Explosions?

3. FA - 1D Collision
   FA - 2D Explosion

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4. Results?
   Experiment 9.1 - Conservation of Momentum (Page 55)

5. Unit 2 - Projectiles, Circular Motion and Universal Gravitation

6. U1 - S1 - Uniform Circular Motion

7. Uniform Circular Motion

8. Horizontal Circular Motion

9. Centripetal Acceleration

10. Centripetal Force

FA - 1D Collision

A 92.0 kg football player running at 6.50 m/s south collides with an 85.0 kg football player running at 6.00 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

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.

Science 10

Monday, October 23/17

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1. Return Marks: SA - Chem #2
2. Ionic vs Molecular Compounds
3. Worksheet: Translating Word Equations - HW

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4. Predicting Products
5. Worksheet: Predicting Products

Types of Compounds

Ionic

Starts with
1. metal
2. ammonium / NH_4^+

Name → Formula

magnesium chloride
m

Mg^{2+} Cl^{-1}
1 2

$MgCl_2$

iron (II) chloride

Fe^{+2} Cl^{-1}
1 2

potassium nitrite

K^+ $(NO_2)^{-1}$

KNO_2

Formula → Name

SrF_2
m

strontium fluoride

$Al(NO_3)_3$
m

aluminum nitrate

Molecular

Starts with
1. non-metal
2. metalloid.

*** Prefixes**

1 = mono	6 = hexa
2 = di	7 = hepta
3 = tri	8 = octa
4 = tetra	9 = nona
5 = penta	10 = deca.

Name → Formula

hexachlorine dioxide

Cl_6O_2

iodine trifluoride

IF_3

trifluorine monoiodide

F_3I_1

Formula → Name

Br_5Hg

pentabromine monohydride