

# Physics 112

Wednesday, February 26/20

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1. Questions?

**IP - U1S2 -> Graphical Analysis**

2. FA - Velocity vs Time Graph - Submit for Recording

3. SA: U1 S1&2 -> Topics (See Next Page)

-> **Date: Friday, Feb. 28**

-> Questions?

## **\*Task Sheets**

4. U1-S3: Mathematical Analysis

5. Word Problem Checklist

6. Uniform Motion - Kinematic Equation

7. Guided Practice - Applying the Kinematic Equation for UM

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8. Uniformly Accelerated Motion - Kinematic Equation #1

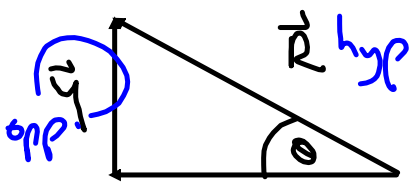
Kinematic Equation #2

Kinematic Equation #3

Kinematic Equation #4

Calculate R

If  $X = 27$  m/s,  $W$  and  $Y = 12.3$  m/s,  $N$ , calculate their vector sum.



S.H (A.H) (T.H)

$$\tan \theta = \frac{12.3 \leftarrow 35^\circ}{27 \leftarrow 25^\circ}$$

$$\theta = 24^\circ$$

$$R = \sqrt{x^2 + y^2}$$

$$R = \sqrt{27^2 + 12.3^2}$$

$$R = \frac{30 \text{ m/s}}{25^\circ}$$

$$\vec{R} = 30 \text{ m/s}, 24^\circ \text{ N of } \underline{W}$$

↑  
1st

$$\alpha 66^\circ \text{ W of } \underline{N}$$

## Topics -> SA U1: S1&2

1. kinematics
  2. two types of physical quantities:
    - (i) scalar quantity - has magnitude and a unit
      - be able to provide the definitions, symbols, and units of time, distance and speed
    - (ii) vector quantity - has magnitude, direction and a unit
      - vector notation
      - conventional directions
      - be able to provide the definitions, symbols, and units of position, displacement, velocity and acceleration
  3. arrows are used to represent vector quantities graphically
  4. resultant
  5. two graphical methods used to add vector quantities:
    - (i) tip-to-tail method
    - (ii) parallelogram method
  6. determine the range of possible resultant values
  7. add vectors analytically (follow the rubric)
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8. three types of motion: no motion
    - uniform motion
    - uniformly accelerated motion
  9. use direction of velocity and acceleration to describe an object's motion (ie/ complete chart for vehicle)
  10. interpret position-time graphs
  11. interpret velocity-time graphs
  12. obtain information by reading data from a velocity-time graph and performing calculations

Format: MC (multiple choice)

Interpret General P-T and V-T Graphs

Calculate **R** (rubric)

Chart (motion of a vehicle)

Velocity-Time Graph

# Physics 122

Wednesday, February 26/20

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1. Questions?

IP - U1S2 - Static Torque (Type I)

IP - U1S2 - Static Torque (Type II)

2. Task Sheet

3. SA - 2D Forces and Static Torque Problems

Date - Friday, Feb. 28/20

- Calculate **R**
- Push or Pull Problem
- Suspended Object (Complex) Problem
- Inclined Plane Problem
- Static Torque (Type I) Problem
- Static Torque (Type II) Problem

4. Extra FAs Available

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## Science 122

Wednesday, February 26/20

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1. Check:  
**IP - Half-Life, Activity and Decay Constant (2)**
  2. FA - Decay Problems
  3. Electron-volt
  4. Quantization of Energy
  5. Photons
  6. The Photoelectric Effect - To Be Considered
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7. Solar Cells
  8. Wave-Particle Duality of Light
  9. **IP - Energy of Photons, Work Function, Etc.**

# Science 10

Wednesday, February 26/20

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1. Return:  
SA - Chemistry #1  
FA - Atoms and Ions
  2. Check:  
[Nomenclature Worksheet #3 -Ionic Compounds Containing Polyatomic Ions](#)
  3. Transition Elements
  4. Multivalent Metals
  5. Ionic Compounds Containing Multivalent Metals
  6. [Worksheet #4 - Ionic Compounds Containing Transition Metals](#)
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7. Recap - Types of Ions
  8. Identify Types of Ions
  9. Worksheet #5 - Ionic Compounds Summary
  10. Lots of Ionic Naming Practice Problems
  11. FA - Mixed Ionic Compounds