

## Physics 112

Friday, February 12/16

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## Wellness Breakfast

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1. Assignment - Metric System -> **Due: Today, February 12/16**
  2. Quiz - Basic Skills -> **Tuesday, Feb. 16/16**
  3. Check -> Worksheet - Conversions and Rearranging Formulas
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4. Physics Lab - Experiment 2.1: Measuring Length

# Quiz: Basics Skills- Topics

1. definition of physics
2. SI system - quantities and 7 base units (names/symbols) *chart*  
 - derived units (m/s, N\*)
3. SI prefixes - names, symbols and powers of ten
4. Significant Digits - in a given measurement *digits after dec.*  
 - apply precision (+ and -) and certainty (x and ÷) rules *SD.*
5. metric conversions *(3)*
6. rearranging equations
7. accuracy/precision

$12.47 \text{ m}$	$1.00 \text{ m}$ <i>3SD</i>
$1. \text{ m}$	$\times 2.5 \text{ m}$ <i>2SD</i>
<hr style="border: 0; border-top: 1px solid black;"/> $13.47 \text{ m}$	<hr style="border: 0; border-top: 1px solid black;"/> $2.5 \text{ m}^2$ <i>2SD</i>

$13 \text{ m}$

## Science 122

Friday, February 12/16

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1. Quiz - Complex Circuit: Monday, Feb. 15/16

2. Sample Problem - Complex Circuit - Tuesday, Feb. 16/16 *7-10*

3. Topic 2 - Magnetism

4. Electric Charge vs Magnetic Poles


5. Lodestones and Ferromagnetic Materials

6. Magnetic Domains

7. Magnetic Field Lines

## Science 10

Friday, February 12/16

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1. Assignment - Autobiographical Poem - 4 Days Late
  3. Assignment - Your Name in Chemical Symbols  
- Due: Today, Feb. 12/16
  4. Check -> Worksheet #2 - Simple Binary Ionic Compounds
  5. Quiz - Matter to Simple Binary Ionic Compounds  
- Tuesday, Feb. 16/16
  6. Polyatomic Ions
  7. Ionic Compounds Containing Polyatomic Ions
  8. Worksheet #3 - Ionic Compounds Containing Polyatomic Ions HW
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## Science 10

**Quiz - Matter to Simple Binary Ionic Compounds**

Topics:

1. matter -> has mass and takes up space
2. physical properties -> observed with senses
  - > color, texture, odor, taste, lustre, malleability, ductility, brittleness, solubility, state of matter (solid, liquid, gas)
3. chemical properties -> ability/inability to undergo a change that alters its composition like corrosion, tarnishing, rusting, exploding
4. distinguish between physical and chemical changes
5. evidence that a chemical reaction has occurred
  - color change
  - formation of a precipitate (solid)
  - heat or light given off
  - odor produced
  - production of bubbles
  - change in temperature
6. pure substances (elements and compounds)
7. atoms -> building blocks of matter
  - > three subatomic particles:  $p^+$ ,  $n$ ,  $e^-$
  - > electrically neutral:  $\#p^+ = \#e^-$
8. atomic number = number of protons
9. periodic table of the elements - consist of periods (rows) and groups/families (columns)
  - be able to label family and period names
  - elements are represented by chemical symbols
  - be able to draw staircase line
  - locate metals, nonmetals and metalloids
10. characteristics of metals and nonmetals
11. ions -> atoms that have gained or lost electrons
  - > cations/positive ions/metallic ions
  - > anions/negative ions/nonmetallic ions
  - > be able to state ion names, number of protons, number of electrons and ion charges
  - > be able to name monatomic ions
12. ionic bonds - formed when electrons are transferred from metals to nonmetals
13. simple binary ionic compounds - consist of 2 elements
  - electrically neutral
  - be able to name and provide chemical formulas

You will need your two periodic tables.

## Physics 122

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1. Return -> Formative - Perpendicular Components
2. Push vs Pull
3. Check -> Worksheet: Force Problems - Type I
4. Static Equilibrium
5. Force Problems - Type II - Suspended Objects - Simple
6. [Worksheet - Type II - Simple - HW](#)

7. Force Problems - Type II - Suspended Objects - Complex
8. Worksheet - Type II - Complex

**Formative Assessment - Perpendicular Components**Thursday - Feb. 11/16

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Determine the resultant of 243 km, 50.0° N of E and 57.0 km, 20.0° S of E. ( 268 km, 38.5° N of E)

$$\vec{R} = 268 \text{ km}, 38.5^\circ \text{ N of E}$$