# RULES FOR SOLVING PHYSICS PROBLEMS - Mr. Ward - 2010-2011

#### Rule 0:

Do problems in PENCIL; erase, DON'T SCRATCH OUT errors.

# **Rule 1**:

Write the GIVEN info and UNKNOWN with correct SYMBOL & UNITS.

# **Rule 2:**

Draw DIAGRAM or FBD when needed.

# Rule 3:

Convert all the units to MKS UNITS.

### Rule 4:

Write down the BASIC EQUATION.

#### Rule 5:

REARRANGE the equation to SOLVE FOR UNKNOWN on the LEFT.

# Rule 6:

Write ONLY 1 (ONE) EQUAL SIGN PER LINE.

#### **Rule 7:**

ALIGN all EQUAL SIGNS and EQUATIONS VERTICALLY.

#### Rule 8:

SUBSTITUTE KNOWN VALUES, with UNITS, into the WORKING equation.

### Rule 9:

Answer must have SYMBOL, EQUAL SIGN, NUMBER, and correct UNITS.

#### **Rule 10:**

Put FINAL ANSWER on a LINE BY ITSELF.

# **Rule 11:**

ROUND to proper number of SIG FIGS, usually THREE.

#### **Rule 12:**

DOES THE ANSWER MAKE SENSE? If "YES", BOX IT!

### **Rule 13:**

Numbers must begin with a DIGIT from 0 to 9, not a DECIMAL POINT.

#### **Rule 14:**

No COMMAS in numbers. No DOTS or 'X' to multiply or '/' to divide. Use ( ).

### **Rule 15:**

Use SCIENTIFIC NOTATION when NUMBER in exponent is <-3 or >3.