

WebAssign**PH172SP12-HW01 - Intro to WebAssign, etc (Homework)**

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PHYS 172-SPRING 2012, Spring 2012

Instructor: Virendra Saxena

Current Score : 38 / 38 **Due :** Thursday, January 12 2012 11:59 PM EST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)

1. 1/1 points | [Previous Answers](#)

Who's in Charge

Who can help you with answering the questions, changing the due date, giving you extra submissions, or changing the kind of feedback you get after you submit the assignment?

- ☐ WebAssign Staff
- ☒ Your teacher or persons designated by your teacher



2. 1/1 points | [Previous Answers](#)

Protecting Your Work

To protect your answers after completing an assignment, what should you do?

- ☐ Close your browser window.
- ☒ Click the Logout link in the upper right hand corner on the WebAssign page.
- ☐ Let someone else start working in another window of your browser.



3. 2/2 points | [Previous Answers](#)

Multiple Choice

A living species must demonstrate all of the characteristics listed below except which one?

- ☐ growth and development during its lifetime
- ☐ the ability to reproduce
- ☐ the ability to respond to changes in its environment
- ☒ movement



In a specific ecosystem, the population with the greatest number of members will be the producers.



4. 1/1 points | [Previous Answers](#)

Multiple Select

Which of the following cities are capitals of a country? (Select all that apply.)

- ☒ London
- ☒ Paris
- ☐ Chicago



5. 1/1 points | [Previous Answers](#)

Fill in the Blank

Name one of the planets of our solar system.

Neptune



6. 1/1 points | [Previous Answers](#)

Scientific Notation

Very large and very small numbers are easier to write in scientific notation. For example, the number, 0.0000516 would be written 5.16×10^{-5} in scientific notation. How would you enter this number in WebAssign using scientific notation to 3 significant figures? (WebAssign uses [e-notation](#) for entering scientific numbers, for example, 1.23e-4.)


5.16e-5



7. 1/1 points | [Previous Answers](#)

Numerical

WebAssign will do simple calculations for you, using +, -, *, /, parentheses, and E-notation. For example, if a question asks for half the sum of 246 and 388, you can enter "(246+388)/2". For more complicated calculations you'll need to use a calculator and then enter your result. What is the product of 130 and 90?

11700 

8. 1/1 points | [Previous Answers](#)

Correct Number Formats

Numbers may be entered in several formats - including scientific notation and numerical expressions. WebAssign uses standard scientific or "e" notation for "times 10 raised to the power." For example, 1e3 is the scientific notation for 1000.

- You cannot have a space in a number.
- You cannot substitute the letter O for zero or the letter I for 1.
- You cannot include the units in the number unless specifically asked for.
- You can include the sign + or - of the number.

Which of the entries below will be interpreted as numbers? (Select all that apply.)

☐ 2.54 m

☒ 1.9435


☒ 1.56e-9

☐ 1.23 inches

☒ -4.99

☐ 1.56 e-9

☒ 3.25E4



9. 1/1 points | [Previous Answers](#)

Tolerance

By default, your numerical entry is scored as correct if it is within 1% of the correct answer. A rule of thumb is always to enter at least 3 digits for numerical questions.

If the correct answer is 7.37109, which of the following entries would be counted as correct? That is,

which entries are within WebAssign's default tolerance? (Select all that apply.)

- ☒ 7.4374
- ☐ 7.2163
- ☐ 7.2
- ☐ 7.53
- ☒ 7.305
- ☒ 7.37



10.5/5 points | [Previous Answers](#)

How many percent of the total 100% in this course are the following components:

Homework

Lab

Evening & Final Exams

Recitation

Clicker questions

11.1/1 points | [Previous Answers](#)

Which of these are the correct policy, as given in the syllabus?

- ☒ Under special circumstances, you can fill out an Extension Request Form in Room 144 PHYS to get a one-week extension on a Homework or Recitation assignment.
- ☐ WebAssign deadlines will always be extended if you file a request.
- ☒ Under special circumstances, you can fill out an Absentee Report Form in Room 144 PHYS to be excused from particular exams or recitations.
- ☒ Since the three lowest "iClicker" quiz scores will be dropped, in most circumstances you should not report absences from lectures to your lecturer.
- ☐ You do not need to supply documentation when asking to be excused from an exam.
- ☒ Do NOT send emails to your lecturer when you must miss a lecture or need an extension for a WebAssign deadline.
- ☐ Attending class is optional.



12.1/1 points | [Previous Answers](#)

I must register my iClicker on CHIP in order to get the points I earn from the in-class clicker questions. If this is not done, those points may be lost.

☒ True

☐ False



13.1/1 points | [Previous Answers](#)

Which of the following statements about the vectors in the diagram below are correct?

☐ $\vec{s} = \vec{r} + \vec{t}$

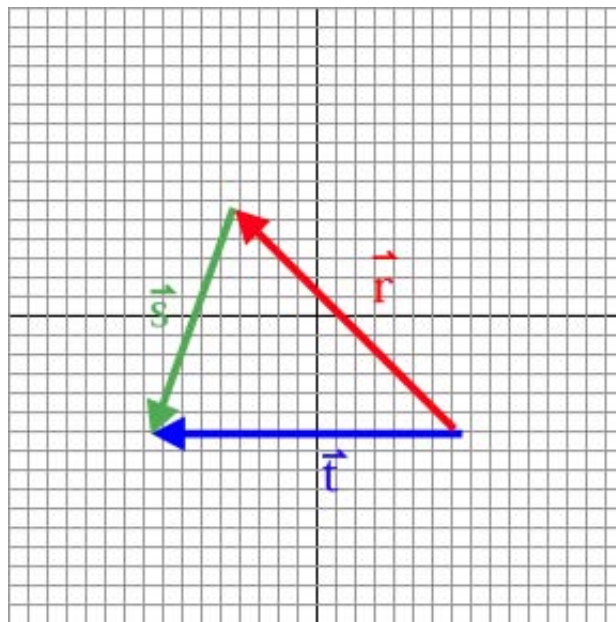
☒ $\vec{t} - \vec{s} = \vec{r}$

☐ $\vec{s} + \vec{t} = \vec{r}$

☒ $\vec{s} = \vec{t} - \vec{r}$

☐ $\vec{r} + \vec{t} = \vec{s}$

☒ $\vec{r} + \vec{s} = \vec{t}$



14.7/7 points | [Previous Answers](#)

A proton is located at $\langle 5\text{e-}10, -6\text{e-}10, -3\text{e-}10 \rangle$ m.

(a) What is \vec{r} , the vector from the origin to the location of the proton?

$$\vec{r} = \langle 5\text{e-}10, -6\text{e-}10, -3\text{e-}10 \rangle \text{ m}$$

(b) What is the magnitude of \vec{r} ?

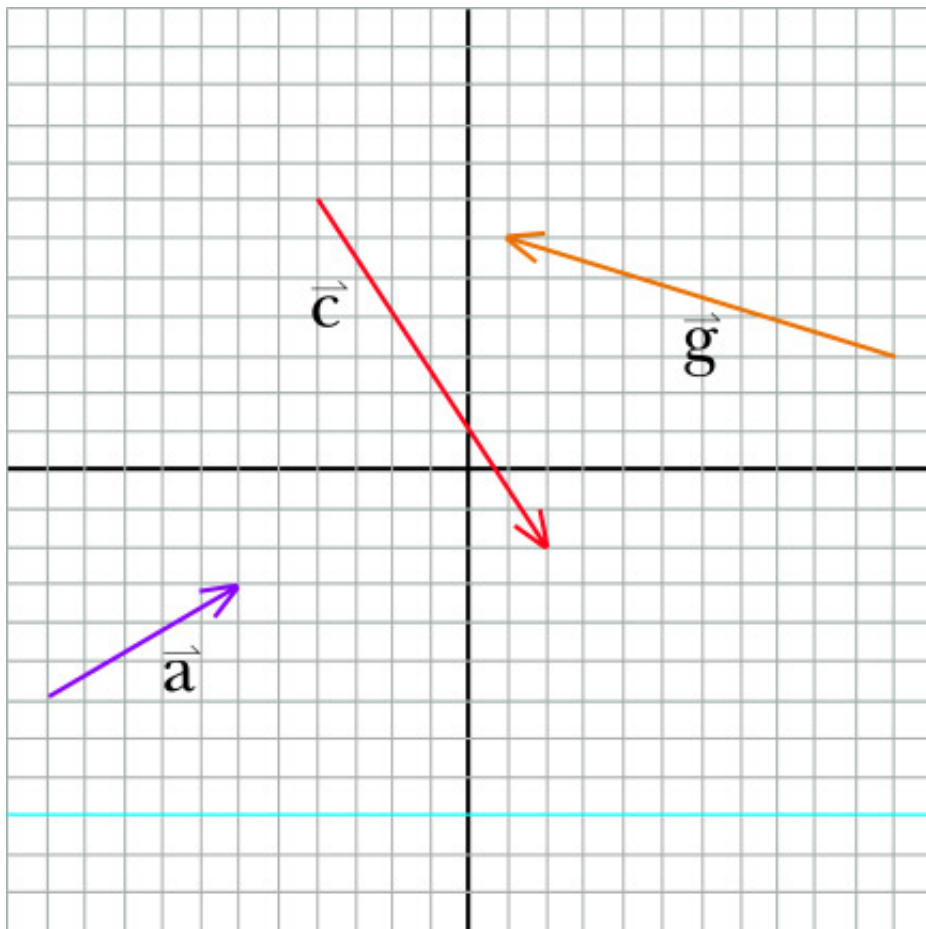
$$|\vec{r}| = 8.37\text{e-}10 \text{ m}$$

(c) What is \hat{r} , the unit vector (vector with magnitude 1) in the direction of \vec{r} ?

$$\hat{r} = \langle 0.60, -0.72, -0.36 \rangle$$

15.9/9 points | [Previous Answers](#)

In the diagram below three vectors are represented by arrows in the xy plane. Each division represents 1 meter.



(a) What are the components of the vector \vec{a} ?

$$\vec{a} = \langle 5, 3, 0 \rangle \text{ m}$$

(b) What is the magnitude of the vector \vec{a} ?

$$|\vec{a}| = 5.83 \text{ m}$$

(c) What are the components of the vector \vec{c} ?

$$\vec{c} = \langle 6, -9, 0 \rangle \text{ m}$$

(d) What is the magnitude of the vector \vec{c} ?

$$|\vec{c}| = 10.82 \text{ m}$$

(e) What are the components of the vector \vec{g} ?

$$\vec{g} = \langle \boxed{-10} \checkmark, \boxed{3} \checkmark, 0 \rangle \text{ m}$$

(f) What is the magnitude of the vector \vec{g} ?

$$|\vec{g}| = \boxed{10.44} \checkmark \text{ m}$$

16.1/1 points | [Previous Answers](#)

Which of the following are vectors? (Select all that apply.)

☐ r


☒ \vec{a}

☒ $\langle v_x, v_y, v_z \rangle$

☐ $|\vec{v}|$

☒ $5 * \vec{p}$

☒ $\vec{r}/2$



17.1/1 points | [Previous Answers](#)

Which of the following are vectors? (Select all that apply.)

☒ $\langle 0.7, 0.7, -0.7 \rangle$


☒ $5 * \langle 33, 1.04, -9.5 \rangle$

☒ $\langle 0, 2.3, -1 \rangle$

☐ 0

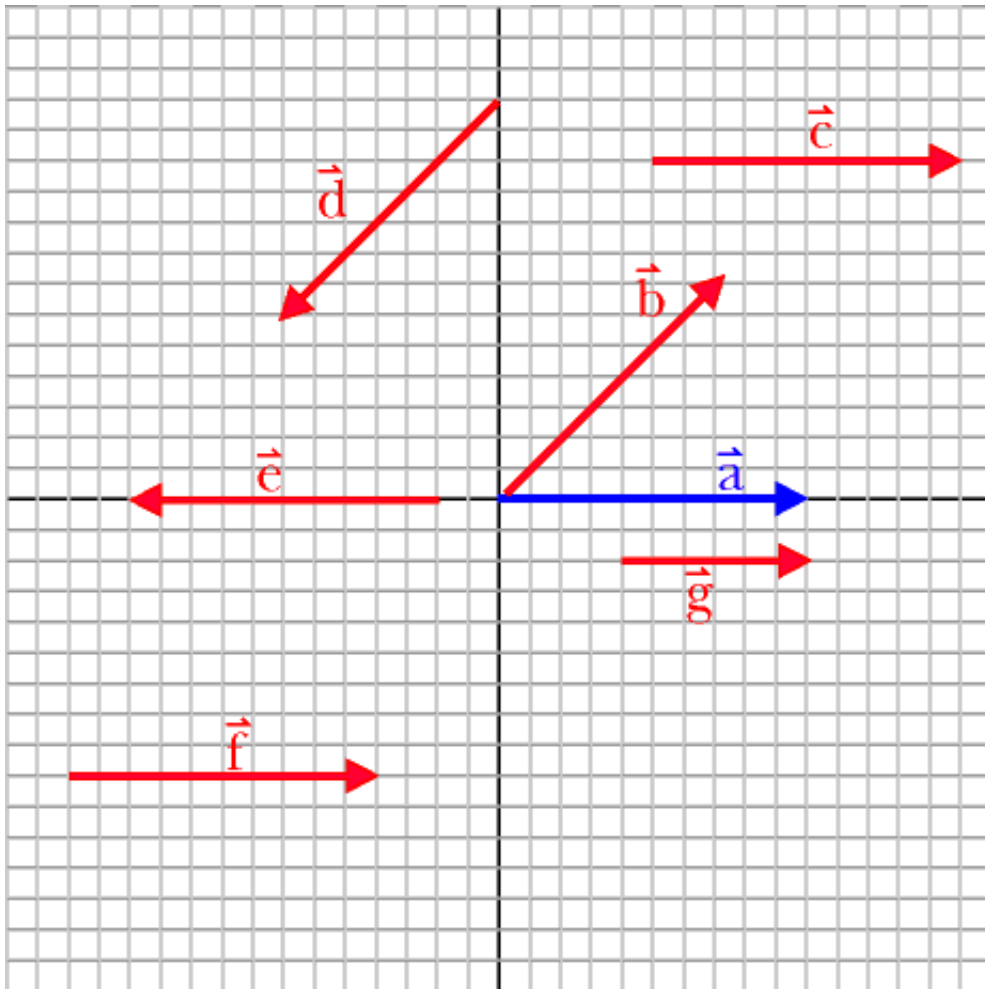
☐ 3.5

☐ $-3e-6$



18.2/2 points | [Previous Answers](#)

Read these questions carefully. They are not the same. (Select all that apply for each.)



(a) Which of the vectors in the diagram have magnitudes equal to the magnitude of \vec{a} ?

- ☒ \vec{b}
 - ☒ \vec{c}
 - ☒ \vec{d}
 - ☒ \vec{e}
 - ☒ \vec{f}
 - ☐ \vec{g}
- ✓

(b) Which of the vectors in the diagram are equal to \vec{a} ?

☐ \vec{b}

☒ \vec{c}

☐ \vec{d}

☐ \vec{e}

☒ \vec{f}

☐ \vec{g}

