

Mastering Astronomy Tips

A. Having problems with the website?

1. Update your browser

The most recent versions of Microsoft IE, Firefox, and Safari all work with the website.

2. Update your Flash video browser plugin

Search for “Adobe Flash Player” for the download.

3. Make sure you're not blocking Flash videos

Some browsers or browser plugins allow you to block Flash video. Make sure these are disabled.

B. Submitting your answer (for regular exercises)

This is relatively straight forward. Use “submit” to save each answer. Use “continue” to move on to the next section after you have answered all the questions.

Part A

The goal of this ranking task is to arrange the geometric shapes in order from the object with the largest number of sides to the object with the smallest number of sides.

To begin this ranking, click on, hold, and drag one of the six shapes into the ranking bin directly below the shapes. Then click on another shape. If this shape has more sides than the right of the first shape. If both shapes have the same number of sides, place this shape on top of the first shape, and the two shapes will align themselves automatically to the right of the first shape.

A typical answer instruction that introduces a ranking task and that also applies to this problem is as follows:

Rank these shapes from largest to smallest number of sides.

octagon hexagon pentagon square rectangle triangle

Largest number of sides Smallest number of sides

The correct ranking cannot be determined. [reset](#) [help](#)

[submit](#) [my answers](#) [give up](#) [review part](#) [submit item](#)

Use this button for each question

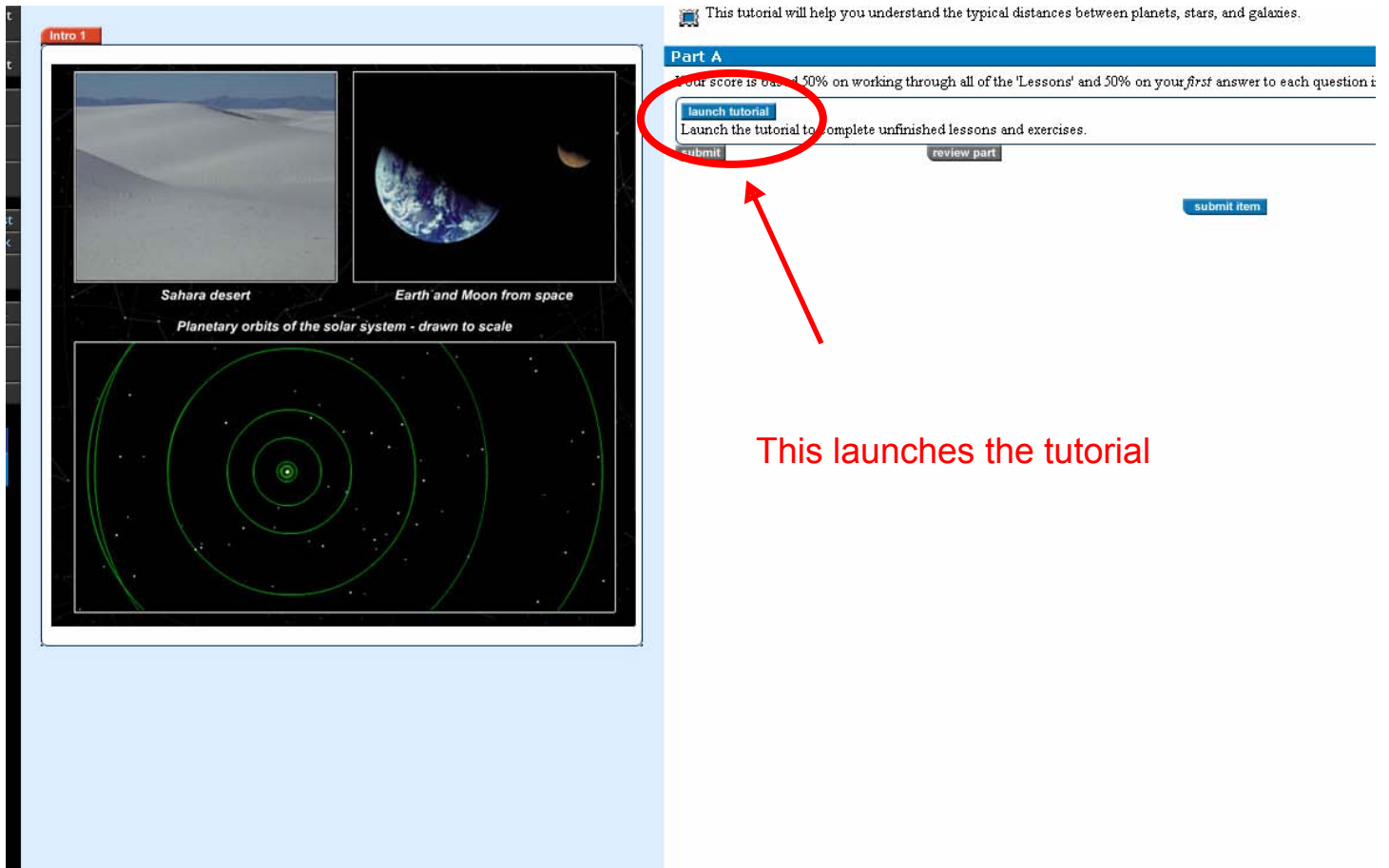
[Continue](#) [See Score and Provide Feedback](#)

Use this button at the end of the section

C. Submitting tutorial answers

At first these are not as straightforward as the regular exercises, but they do use a common set of commands. Once you figure out how one works, the rest will all work the same way.

1. *Launch the tutorial*



The screenshot displays a tutorial interface. On the left, a panel titled "Intro 1" contains three images: a photograph of the Sahara desert, a photograph of Earth and the Moon from space, and a diagram of the solar system's planetary orbits drawn to scale. On the right, the main interface shows a blue header "Part A" and a text box stating "Your score is based on 50% on working through all of the 'Lessons' and 50% on your *first* answer to each question". Below this, a "launch tutorial" button is circled in red, with a red arrow pointing to it from the text "This launches the tutorial". Other buttons visible include "submit", "review part", and "submit item".

2. Navigating in the Tutorial

Once you start the tutorial you must use buttons within the tutorial to navigate!!!

Clicking any browser navigation buttons **outside** the tutorial **will reset the tutorial!!!** (Or will return you to your last save – keep reading)

An Example Table of Contents

The screenshot displays a tutorial interface with a dark blue background featuring a constellation pattern. At the top, a navigation bar contains buttons for 'Introduction', 'Objectives', 'Lesson 1', 'Lesson 2', 'Lesson 3', 'Exercises', and 'Summary', all enclosed in a red oval. Below this is a 'Table of Contents:' section with a list of items and their descriptions, also enclosed in a red oval. At the bottom left, a 'Navigation' button is visible, with a red arrow pointing to it. At the bottom right, there is a 'Credits' button and a copyright notice: '© 2007 Pearson Education, Inc., publishing as Addison Wesley'. A red arrow points from the text 'These buttons navigate to each section. They stay visible throughout the tutorial.' to the top navigation bar.

The Cosmic Perspective - Scales of the Universe

Introduction · Objectives · Lesson 1 · Lesson 2 · Lesson 3 · Exercises · Summary

Table of Contents:

- Introduction: Background and predictive question
- Objectives: Goals of the tutorial
- Lesson 1: Distances scales: the solar system
- Lesson 2: Distance scales: stars and galaxies
- Lesson 3: Powers of 10
- Exercises: Tutorial questions
- Summary: Goals revisited

Navigation

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Credits

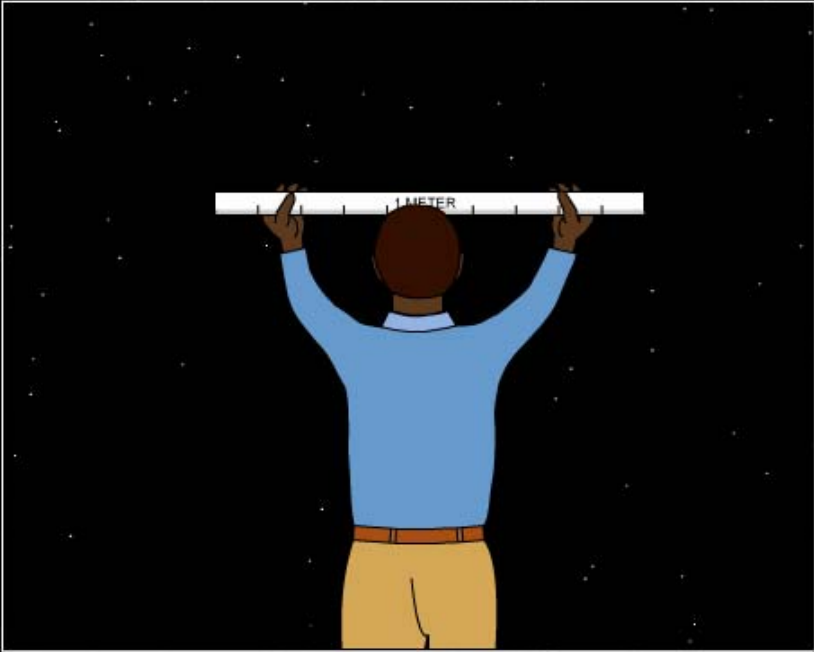
These buttons navigate to each section. They stay visible throughout the tutorial.

These buttons navigate to each section too.

Advancing through the Tutorial - Using "Continue"

The Cosmic Perspective - Scales of the Universe

Introduction Objectives **Lesson 1** Lesson 2 Lesson 3 Exercises Summary



We will start by reviewing how big meters and kilometers are, since all other units of distance are expressed in terms of these units.


A meter is a little over three feet. This means that a tall person has a height of about 2 meters

[Continue](#) ➤

Clicking on this takes you to the next page of *this section*.

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BACK NEXT



Using "NEXT" and "BACK"

The Cosmic Perspective - Scales of the Universe

Introduction · Objectives · Lesson 1 · Lesson 2 · Lesson 3 · Exercises · Summary

We will start by reviewing how big meters and kilometers are, since all other units of distance are expressed in terms of these units.

A meter is a little over three feet. This means that a tall person has a height of about 2 meters.

Continue ➤

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The "BACK" button takes you to the last section

The "NEXT" button takes you to the next section.

The "NEXT" button takes you to the next section.

Some questions require you to “submit” your answer before you can continue...

The Cosmic Perspective - Scales of the Universe

Introduction Objectives Lesson 1 Lesson 2 Lesson 3 Exercises Summary

Sun

Earth

Moon's Orbit

Radius of Sun (km) = 702505 km Submit

10000 1000000

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BACK NEXT

This submits your answer

The Cosmic Perspective - Scales of the Universe

Introduction Objectives Lesson 1 Lesson 2 Lesson 3 Exercises Summary

Sun

Earth

Moon's Orbit

Radius of Sun (km) = 695000 km Submit

10000 1000000

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BACK NEXT


Click "Next" to proceed.

Then click on one of these to go to the next page

And some do not...

The Cosmic Perspective - Scales of the Universe

Introduction Objectives Lesson 1 Lesson 2 Lesson 3 Exercises Summary



1. Roughly how far is it from San Francisco to Washington, DC?

- 500 km
- 1,000 km
- 5,000 km
- 20,000 km

Correct! The distance between San Francisco and Washington, DC is about 3,000 miles, or 5×10^3 km.

Continue ➤

Always use Continue if available

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BACK NEXT

i S

3. Saving your work

When working in a tutorial, you can save your work at any point and come back to it later (even if you quit the tutorial).

The tutorial **automatically quits when you save and your work will not be visible when you restart the tutorial (even though it was saved)**. I recommend you **either save between sections where you can easily remember what you've done or wait to save until you're completely done with the tutorial**.

The Cosmic Perspective - Scales of the Universe

Introduction Objectives Lesson 1 Lesson 2 Lesson 3 Exercises Summary

Earth's Orbit

Sun

$1.5 \times 10^8 \text{ km}$

Although the Sun is big relative to the Earth-Moon system, it is small relative to the orbits of the planets. The average distance between the Sun and the Earth is 150 million (1.5×10^8) km, which is over 200 times the radius of the Sun.

In the scale drawing at left, the Sun must be a small dot for the Earth's orbit to fit in the screen. The Earth itself is invisible.

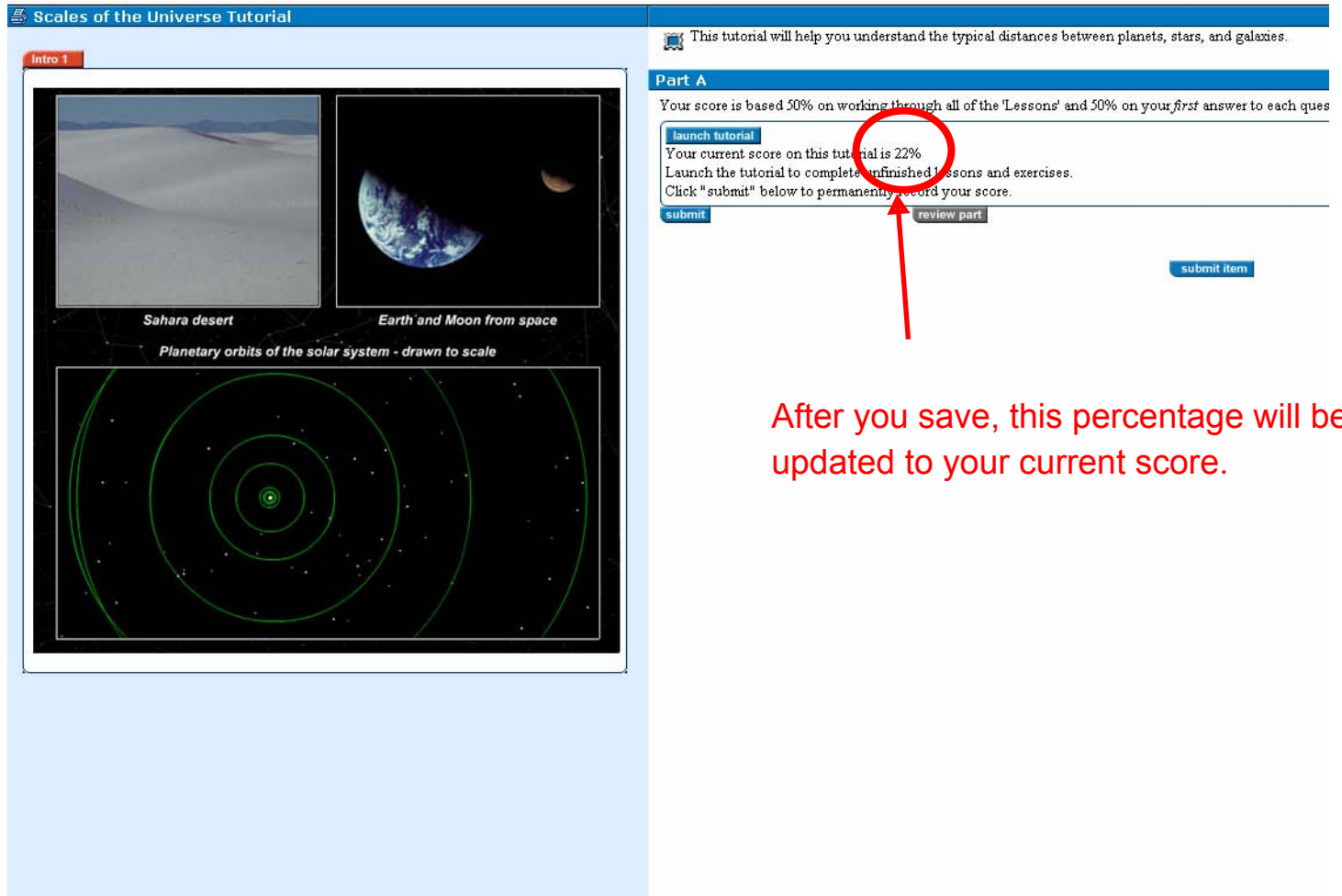
Continue

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THE SAVE BUTTON
VERY IMPORTANT

Tracking your tutorial progress

You can know that your work is saved on the start tutorial page by the percent complete.



The screenshot displays the 'Scales of the Universe Tutorial' interface. On the left, under the 'Intro 1' tab, there are three images: the Sahara desert, Earth and Moon from space, and a diagram of planetary orbits of the solar system drawn to scale. On the right, the 'Part A' section shows the tutorial's purpose and progress. A red circle highlights the text 'Your current score on this tutorial is 22%', with a red arrow pointing to it from the text below. Other buttons visible include 'launch tutorial', 'submit', 'review part', and 'submit item'.

This tutorial will help you understand the typical distances between planets, stars, and galaxies.

Part A

Your score is based 50% on working through all of the 'Lessons' and 50% on your first answer to each question.

launch tutorial

Your current score on this tutorial is 22%

Launch the tutorial to complete unfinished lessons and exercises.

Click "submit" below to permanently record your score.

submit **review part**

submit item

After you save, this percentage will be updated to your current score.

4. Finishing the tutorial

When you get to the end of a tutorial, you'll get the Summary Page.

DO NOT JUST QUIT THE TUTORIAL OR ALL YOUR WORK WILL BE LOST

YOU NOW NEED TO SAVE THE TUTORIAL

The Cosmic Perspective - Scales of the Universe

Introduction Objectives Lesson 1 Lesson 2 Lesson 3 Exercises Summary

Congratulations! You have completed the *Scales of the Universe* tutorial.

You should now be able to:

1. Describe what a light-year and an astronomical unit are, and how they compare to a kilometer.
2. Discuss roughly how much further it is from the Sun to Pluto and Jupiter than to Earth.
3. Use scientific notation.
4. Understand the distances between stars relative to the stars' size.
5. Understand the distances between galaxies relative to the sizes of galaxies.

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CLICK THIS WHEN YOU ARE DONE. DO NOT JUST QUIT THE TUTORIAL.

5. Submitting your work

After you save the tutorial, you go back to the launch/submit page

Warning: Once you hit "submit" your score is FINAL!

If everything looks ok then hit "submit"

You've now finished the tutorial (hurray!). Hit "continue" to move on.

Scales of the Universe Tutorial A Student

This tutorial will help you understand the typical distances between planets, stars, and galaxies.

Part A

Your score is based 50% on working through all of the 'Lessons' and 50% on your first answer to each question in the 'Exercises' section. **You MUST click *Submit* to record your score. It is not possible to return to this self-guided tutorial after clicking Submit. Clicking the S (Save) button saves your work, but does not record your score.**

[launch tutorial](#)
Your final score on this tutorial is 75%
[launch the tutorial to review lessons and exercises.](#)

[See Score and Provide Feedback](#)

D. Finishing the assignment

When there are no more incompletes next to the sections, you're done and your assignment has been fully submitted. You don't need to hit any more submit buttons.

This is an example of a completed assignment:

Homework #1

Due: 5:00pm on Friday, August 27, 2010

Note: You will receive no credit for late submissions. To learn more, read your instructor's [Grading Policy](#)

[\[Print View\]](#)

You completed this assignment.

[Ranking Task: Size and Distance Scales of Levels of Structure in the Universe](#) is for 2 point(s)

Your score: 111%

[Sorting Task: Astronomical Objects](#) is for 2 point(s)

Your score: 103%

[Ranking Task: Astronomical Distances and Light-Travel Time](#) is for 2 point(s)

Your score: 104%

[Ranking Task: Looking Back in Space and Time](#) is for 2 point(s)

Your score: 94%

[Vocabulary in Context: Describing Motions in the Universe](#) is for 2 point(s)

Your score: 112%

[Problem 1.25](#) is for 2 point(s)

Your score: 100%

**No incompletes means
that you are finished.**

[Problem 1.26](#) is for 2 point(s)

Your score: 50%

[Scales of the Universe Tutorial](#) is for 1 point(s)

Your score: 75%

Score Summary:

Your score on this assignment is 94.9%.

You received 14.24 out of a possible total of 15 points.