

8th Grade, Week 5/4-5/8 Due: 5/11

Monday:

Math- Khan Academy (19pts)

Completing the square (5pts, video)

Solving quadratics by completing the square (5pts, article)

Worked example: Completing the square (intro) (5pts, video)

Completing the square (intro) (4pts, exercise)

Tuesday: Virtual Meeting at 9:00am

Math- Khan Academy (14 points)

Worked example: Rewriting expressions by completing the square (5pts, video)

Worked example: Solving equations by completing the square (5pts, video)

Completing the square (intermediate) (4 pts, exercise)

Science- Lesson 12.1 read pg 508-516 complete Mastery 12.1

History- Chpt 11 Practice Test

Wednesday:

Math- Khan Academy (19 pts)

Worked example: completing the square (leading coefficient $\neq 1$) (5pts, video)

Completing the square (4pts, exercise)

Solving quadratics by completing the square: no solution (5pts, video)

Completing the square review (5pts, article)

Thursday: Virtual meeting at 9:00 am.

Math- Khan Academy (14 pts)

Finding the vertex of a parabola in standard form (5pts, video)

Graphing quadratics: standard form (5pts, video)

Graph quadratics in standard form (4pts, exercise)

Science- Watch Repairing the Hubble Space Telescope

(note this is just under an hour long, and was created in celebration of its 25th anniversary, we are not at its 30th year anniversary)

<https://www.pbslearningmedia.org/resource/nvfb-sci-invisibleuniverse/wgbh-nova-invisible-universe-revealed-full-length-broadcast/> Complete Worksheet while you watch.

History- Chpt 11 Test [quizizz.com/join?gc=170608](https://www.quizizz.com/join?gc=170608)

Friday:

Math- Khan Academy (19 pts)

Quadratic word problem: ball (5pts, video)

Quadratic word problems (standard form) (4pts, exercise)

Quadratic functions and equations: Quiz 4 (10pts)

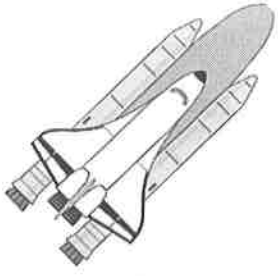
**Chapter Content
Mastery****Stars****CHAPTER 12****LESSON 1**

Directions: Circle the word or phrase that correctly completes each sentence below.

1. A(n) (astronomical unit/light-year) is a unit used to measure interstellar distances and is equal to about 9.5 trillion kilometers.
2. An object's (apparent magnitude/luminosity) is the amount of light energy it emits per second.
3. The (absolute/apparent) magnitude of a star is its brightness as observed from Earth and depends on its actual brightness and distance from Earth.
4. The (absolute/apparent) magnitude is the apparent magnitude a star would have if it were 32.6 light-years away from Earth.
5. The Sun (is/is not) on the main sequence of the Hertzsprung-Russell diagram.
6. A star with a (lower/higher) value for its magnitude is brighter.
7. Each (element/black hole) emits a unique set of spectral lines.
8. Stars are made up mostly of (calcium/hydrogen), helium, and small amounts of other elements.
9. As the temperature of an object rises, the wavelengths of the radiation it emits become (longer/shorter).
10. A (spectroscope/telescope) is a scientific instrument used to study the light that comes from stars.
11. A(n) (continuous/absorption) spectrum has dark bands that correspond to particular elements that have absorbed light between the light source and the observer.

Name _____

Date _____ Period _____



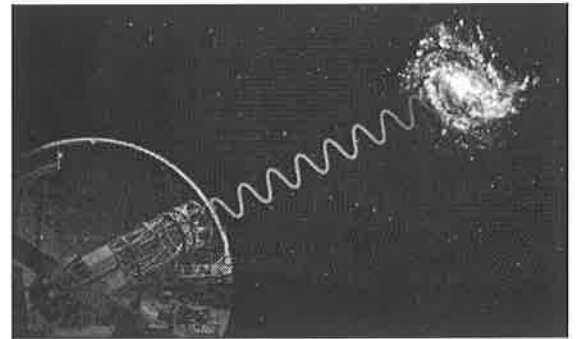
Questions for NOVA Movie: "Invisible Universe Revealed"

Please answer the following questions regarding the movie, *Invisible Universe Revealed*. Answer question #1 before watching the movie.

1. Before watching the movie, what do you think it is about?
2. Which is the greater quantity: The number of stars in outer space, or the number of grains of sand on the beaches and deserts of Earth?
3. True or False: In the 1960s, NASA succeeded in getting a rocket into space on its first try.
4. Choose one: The atmosphere of the Earth _____ (clarifies/distorts) the images of outer space.
5. True or False: It is easy to measure the distance between a star and the Earth.

Edwin Hubble found a way to measure the speed of various galaxies by looking at the light they emitted.

6. Fill-in-the-Blank: If the galaxy was moving toward Hubble, then its light waves would _____ and move to the _____ part of the spectrum.
7. Fill-in-the-Blank: If the galaxy was moving away from Hubble, then its light waves would _____ and move to the _____ part of the spectrum.
8. True or False: The discovery that the universe was expanding was a revelation.
9. Circle one: In building the Hubble space telescope, the NASA engineers decided to use...



A Long Shaft

Two mirrors

Name _____

Date _____ Period _____

10. Did the mirrors have to be perfect?

11. Were there imperfections in the mirror measured by the mirror creators? _____ Was NASA told about them? _____



12. What was wrong with the images captured by the Hubble space telescope when it was first placed into orbit?

13. The red dots below represent the various points where the light rays are coming into _____. There should have been only _____ point.



14. Fill-in-the-Blank: The problem with the mirror was a result of a few missing chips of _____.

15. Did the repair go well?

16. True or False: In the Orion nebula picture from Hubble, all of the bright dots are newborn stars.

17. Do the Supernovas suggest that the universe is slowing down or speeding up?



18. Do we know the relationship between super-massive Black Holes and the galaxies?

19. Has there ever been water found in any other planet?

20. Name at least three new astronomical phenomena we have been able to understand better by using Hubble.



Manifest Destiny chpt 11

20 Questions

NAME : _____

CLASS : _____

DATE : _____

1. As Americans took over more and more land, what happened to Native Americans?

2. What states were part of the Mexican Cession?

3. The war with Mexico BEGAN with

4. How did the U.S. acquire Oregon?

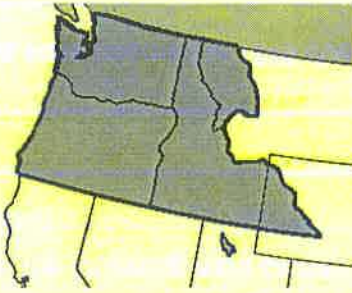
- 5.



Which of the following contributed to the westward expansion of the United States?

6. The philosophy of "Manifest Destiny" stated that American should expand from the Atlantic Ocean to the _____

7.



Name the piece of land.

8. What was the name of the time period where people from all over flocked to California in search for gold?

9. What were the difficulties of the Oregon Trail?

10. Where did the travellers of the Oregon Trail originally set out from?

11. Why would people head West on the Oregon Trail?

12.



Which area of land was acquired in 1848 after a conflict with Mexico?

13. All of the following were causes of the U.S.-Mexico War EXCEPT:

14. What state boomed in 1849 due to the Gold Rush?

15.



Which of the following would most likely be a strong believer in Manifest Destiny?

16. What people group is most abused in the American movement to the West?

17. The Mormons immigrated to the West to

18. Some Northern leaders opposed admitting Texas to the United States because

19. The _____ trail was a busy trade route through New Mexico.

20. Many people wanted control of the Oregon country to
