



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

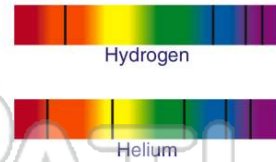
1 As an astronomer observes the night sky, one star appears to be **red** and another **blue**. What does this mean?

- A The red star is hot and the blue star is cool.
- B The red star is cool and the blue star is hot.
- C They are at different distances from the earth causing different colors.
- D The earth's atmosphere "bends" the light so it looks red and blue.



2 The **composition** of stars is the list of elements that make up that star. The composition of a star is determined by studying the light the star gives off. Which of the following **instruments** helps scientists analyze the composition of stars?

- A a jolly balance
- B a barometer
- C a spectrograph
- D a telescope



3 Stars have been **classified** since the 1800s. Then, they were **classified** based on the elements determined to be in the stars based on spectrograph studies. **Today, stars are classified based on their \_\_\_\_\_.**

- A composition
- B temperature



4 Ancient astronomers tried to categorize the brightness of stars by standing under the night sky and observing. Today we know that **brightness** depends in part on that star's **distance** from the earth. **How bright a star appears to look to observers on earth is called the star's \_\_\_\_\_.**

- A absolute magnitude
- B apparent magnitude



## PREVIEW

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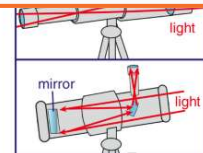
7  
H  
a  
5  
is

- A 150,000 km
- B 150,000,000 km
- C 1.5 billion km
- D over  $4.7 \times 10^{15}$  km



refracting telescopes use **mirrors** to gather and focus light.

- A true
- B false



9 When using a reflecting or refracting telescopes, why is it **best** to place use the telescope on a **mountain top**?

- A this gets the telescope closer to the stars
- B a mountain top is away from lights and pollution
- C the air is thinner
- D both b and c



10 The earth's atmosphere blocks out certain types of rays. Which of the following types of telescopes can only work in orbit **outside** of the earth's **atmosphere**?

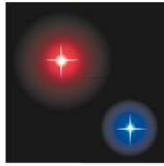
- A refracting telescope
- B reflecting telescope
- C x-ray telescope
- D radio telescope





## ANSWER KEY

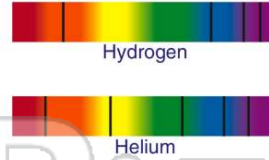
As an astronomer observes the night sky, one star appears to be **red** and another **blue**. What does this mean?



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(b)

The **composition** of stars is the list of elements that make up that star. The composition of a star is determined by studying the light the star gives off. Which of the following **instruments** helps scientists analyze the composition of stars?



- A a jolly balance
- B a barometer
- C a spectrograph
- D a telescope

(c)

Stars have been **classified** since the 1800s. Then, they were classified based on the elements determined to be in the stars based on spectrograph studies. **Today, stars are classified based on their** \_\_\_\_\_.



- A composition
- B temperature
- C distance from the earth
- D

(b)

Ancient astronomers tried to categorize the brightness of stars by standing under the night sky and observing. Today we know that **brightness** depends in part on that star's **distance** from the earth. **How bright a star appears to look to observers on earth is called the star's** \_\_\_\_\_.



- A absolute magnitude
- B apparent magnitude
- C first magnitude

(b)



## PREVIEW

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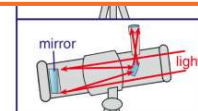
- A 100,000,000 km
- B 1.5 billion km
- C 1.5 billion km
- D over  $4.7 \times 10^{15}$  km



Earth

focus light.  
True or false?

- A true
- B false



When using a reflecting or refracting telescopes, why is it **best** to place use the telescope on a **mountain top**?

- A this gets the telescope closer to the stars
- B a mountain top is away from lights and pollution
- C the air is thinner
- D both b and c



(d)

The earth's atmosphere blocks out certain types of rays. Which of the following types of telescopes can only work in orbit **outside** of the earth's **atmosphere**?

- A refracting telescope
- B reflecting telescope
- C x-ray telescope
- D radio telescope



(c)