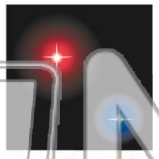
Stars, Galaxies and the Universe

Sci H

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

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

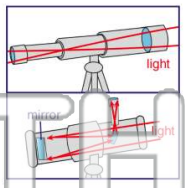
7 **500 light years** away. How many **kilometers** is the star from the earth?

A 150,000 km
B 150,000,000 km
C 1.5 billion km
D over 4.7 x 10^{13} km

over **refracting telescopes**. The main **difference** is that reflecting telescopes use **lenses** and refracting telescopes use **mirrors** to gather and focus light.

True or false?

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

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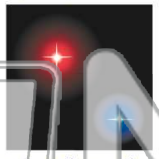

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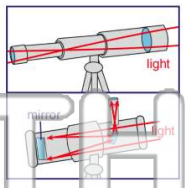

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