

NOTE:

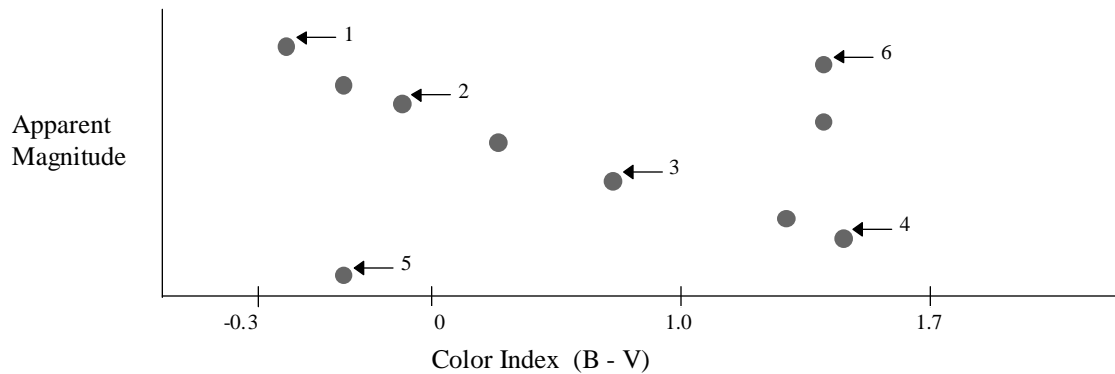
This document contains both the pre- and post- test and the pages are labeled accordingly.

The Photoelectric Photometry of the Pleiades Pre-test

Name _____ Date _____
Graduation Date _____ Major _____

1. What two pieces of information about a star does an astronomer need in order to determine its distance?

Below is a H-R diagram of several stars.



- a. Which labeled star(s) is the hottest?
 - b. Which labeled star(s) is the brightest?
 - c. Which labeled star(s) is the largest?
 - d. Which labeled star(s) is the faintest?
 - e. Which labeled star(s) would appear red?
 - f. Which labeled star(s) is a main sequence star?
 - g. Which labeled star(s) is a white dwarf?
2. The motor on your telescope breaks during an observing session. What would you notice about what you are seeing through the telescope?

3. Why do astronomers use different colored filters?
4. Why is it more difficult to measure the apparent magnitude of a faint star than of a bright star?
5. What is the device an astronomer uses to measure the apparent magnitude of a star?
6. Two stars in the sky appear to have the same brightness. They must also have the same:

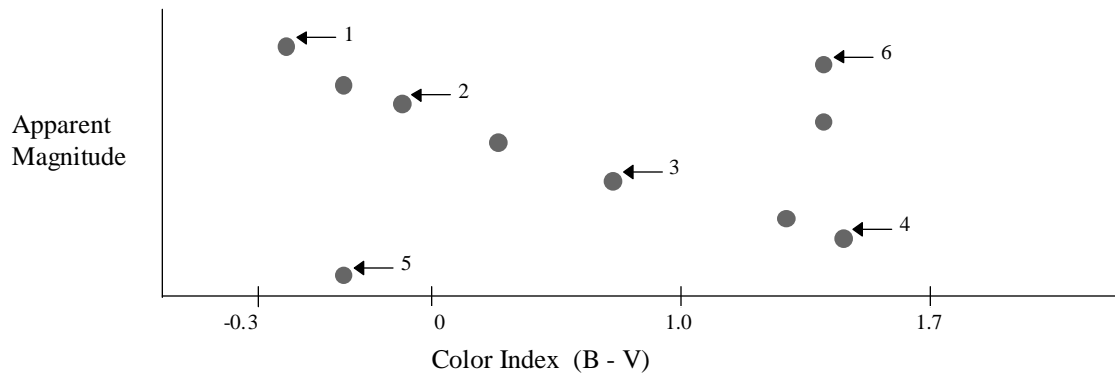
| | <u>Yes</u> | <u>No</u> |
|--------------------|--------------------------|--------------------------|
| absolute magnitude | <input type="checkbox"/> | <input type="checkbox"/> |
| apparent magnitude | <input type="checkbox"/> | <input type="checkbox"/> |
| luminosity | <input type="checkbox"/> | <input type="checkbox"/> |
| distance | <input type="checkbox"/> | <input type="checkbox"/> |

The Photoelectric Photometry of the Pleiades Post-test

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Graduation Date _____ Major _____

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- a. Which labeled star(s) is the hottest?
 - b. Which labeled star(s) is the brightest?
 - c. Which labeled star(s) is the largest?
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| | <u>Yes</u> | <u>No</u> |
|--------------------|--------------------------|--------------------------|
| absolute magnitude | <input type="checkbox"/> | <input type="checkbox"/> |
| apparent magnitude | <input type="checkbox"/> | <input type="checkbox"/> |
| luminosity | <input type="checkbox"/> | <input type="checkbox"/> |
| distance | <input type="checkbox"/> | <input type="checkbox"/> |