Name _____ Date _____ Hour _____

Got It!	Not Yet...
28-21	20-0

Astronomy #4 - Study Guide ALTERNATE

The Moon, the Stars & the Galaxy

1) Put these terms in order from the largest (1) to smallest (6)...

_____ _____ _____ _____ _____ _____

solar system **planet** **moon** **galaxy** **star** **universe**

2) The Moon orbits the Earth making it a natural _____.

3) Every year the Moon gets _____ (closer to, further away from) the Earth? What is the approximate distance? _____

4) What is the length of time it takes for the Moon to revolve (orbit) around the Earth? _____ How long does it take for the Moon to make one complete rotation? _____

What does the Moon's rotation and revolution have to do with the face of the Moon that is visible to us on Earth?

5) Explain why there are so many craters on the Moon.

6) Where does the light of the Moon come from?

7) When a little bit more of the Moon is visible as it moves away from the sun we call it _____. When less of the moon is visible as it moves toward the sun, we call it _____.

8) What characteristics would you use to distinguish between a crescent and a

gibbous moon?

9) Use the diagram below to name and illustrate the phases of the Moon.

A. _____

B. _____

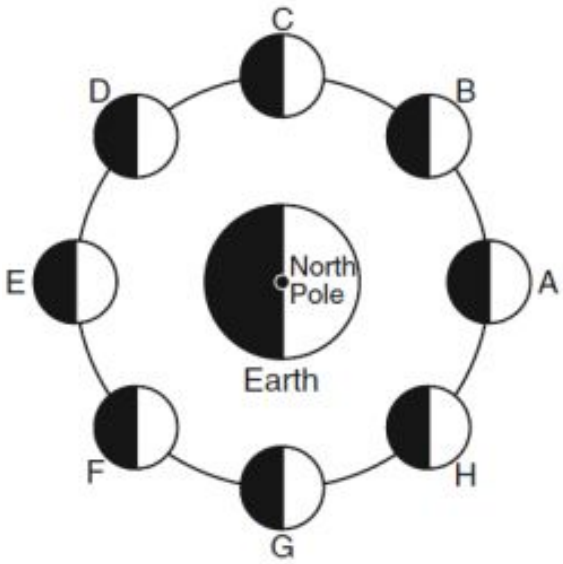
C. _____

D. _____

E. _____

F. _____

G. _____



(Not drawn to scale)

H. _____

10) Illustrate the position of the Moon, Earth and Sun in order for a lunar eclipse to occur?

Illustrate the position of the Moon, Earth and Sun in order for a solar eclipse to occur?

11) Where do stars get their energy to shine?

13) On Earth we receive _____ and _____ which are two forms of energy from the sun?

14) Give identify three ways in which stars may differ from each other.

-
-
-

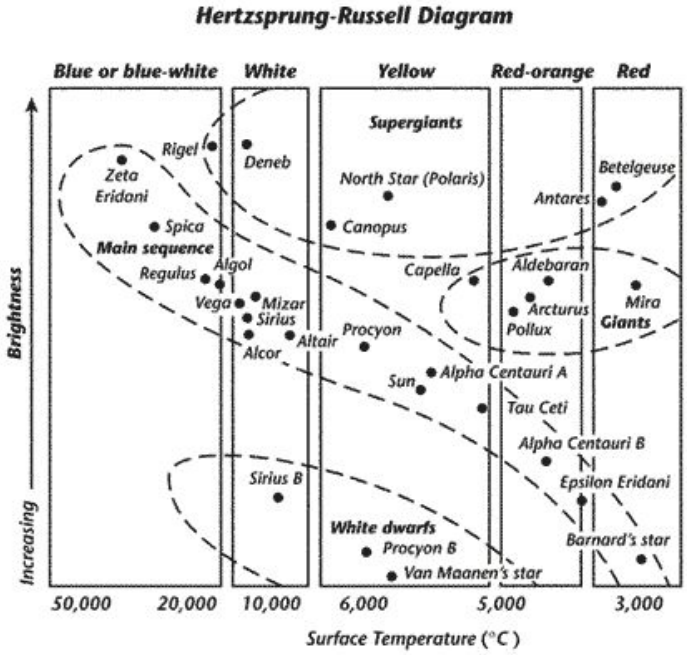
15) What is the unit for temperature on this H.R. diagram?

_____

16) What is the y - axis measuring?

17) What is the x - axis measuring?_____

What is the unit? _____



18) Which star is cooler, Arcturus or the Sun? _____

19) Which star is dimmest, Betelgeuse, Vega, Centauri, Rigel?

_____

20) Which star is hottest, Sirius, Betelgeuse or Rigel? _____

21) Which star is brighter, The North Star or Vega? _____

22) The size of a star will affect its _____.

23) What is another term used on HR diagrams to mean brightness?

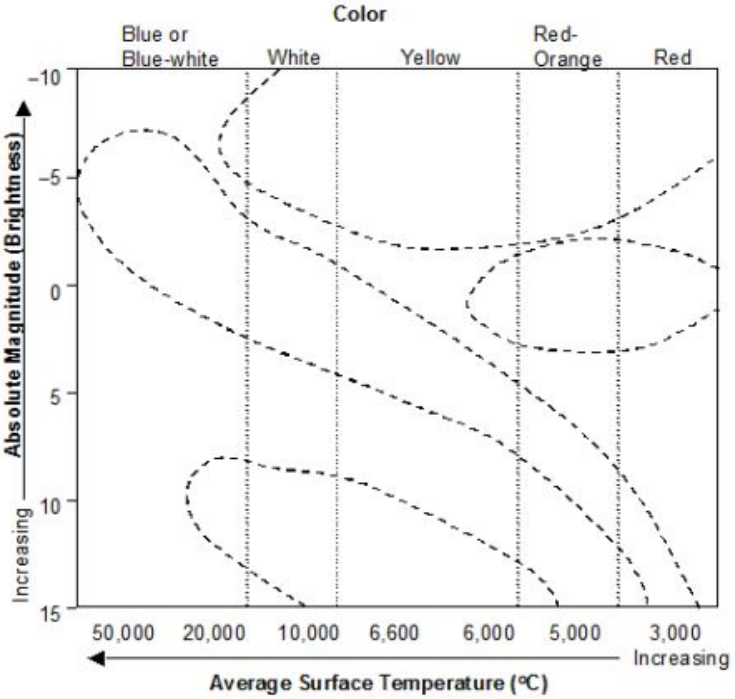
_____

24) Plot these stars on the HR-Diagram and determine their color.

Letter	Temperature	Luminosity	Color
A	30,000°C	-2	
B	5,500°C	5	
C	6,000°C	-8	
D	8,500°C	12	
E	3,000°C	1	

25) Explain why we see different stars at different times in the night sky?

26) Why does Polaris not appear to move it position in the sky?



27) What is the common name

for the star Polaris? _____

28) The galaxy our solar system is part of is called the _____ _____.

29) What is the shape /type of our galaxy?

_____

30) Are we able to see the shape from Earth? Why or why not?