

1. \_\_\_\_\_ **a** \_\_\_\_\_ (a,b,c,d,e)
2. \_\_\_\_\_ **Lyra** \_\_\_\_\_ (name of constellation)
3. \_\_\_\_\_ **Altair** \_\_\_\_\_ (name of star)
4. \_\_\_\_\_ **Aquila** \_\_\_\_\_ (name of constellation)
5. \_\_\_\_\_ **b** \_\_\_\_\_ (a,b,c,d,e)
6. \_\_\_\_\_ **Hercules** \_\_\_\_\_ (name of constellation)
7. \_\_\_\_\_ **f** \_\_\_\_\_ (f,g,h,i,j,k,l,m,n)
8. \_\_\_\_\_ **Ursa Major** \_\_\_\_\_ (name of constellation)
9. \_\_\_\_\_ **g** \_\_\_\_\_ (f,g,h,i,j,k,l,m,n)
10. \_\_\_\_\_ **Bootes** \_\_\_\_\_ (name of constellation)
11. \_\_\_\_\_ **Spica** \_\_\_\_\_ (name of star)
12. \_\_\_\_\_ **m** \_\_\_\_\_ (f,g,h,i,j,k,l,m,n)
13. \_\_\_\_\_ **Orion** \_\_\_\_\_ (name of constellation)
14. \_\_\_\_\_ **Betelgeuse** \_\_\_\_\_ (name of star)
15. \_\_\_\_\_ **Rigel** \_\_\_\_\_ (name of star)
16. \_\_\_\_\_ **Gemini** \_\_\_\_\_ (name of constellation)
17. \_\_\_\_\_ **r** \_\_\_\_\_ (o,p,q,r,s,t,u)
18. \_\_\_\_\_ **Canis Major** (name of constellation)
19. \_\_\_\_\_ **Cancer** \_\_\_\_\_ (name of constellation)
20. \_\_\_\_\_ **Aldebaran** \_\_\_\_\_ (name of star)
21. \_\_\_\_\_ **v** \_\_\_\_\_ (v,w,x)
22. \_\_\_\_\_ **Altair or Arcturus** \_\_\_\_\_ (name of star)
23. \_\_\_\_\_ **Altair or Arcturus** \_\_\_\_\_ (name of star)
24. \_\_\_\_\_ **y** \_\_\_\_\_ (y,z,aa,bb)
25. \_\_\_\_\_ **z** \_\_\_\_\_ (y,z,aa,bb)
26. \_\_\_\_\_ **Capella** \_\_\_\_\_ (name of star)
27. \_\_\_\_\_ **ff** \_\_\_\_\_ (cc,dd,ee,ff,gg)
28. \_\_\_\_\_ **cc** \_\_\_\_\_ (cc,dd,ee,ff,gg)
29. \_\_\_\_\_ **dd** \_\_\_\_\_ (cc,dd,ee,ff,gg)
30. \_\_\_\_\_ **Algol** \_\_\_\_\_ (name of star)
31. \_\_\_\_\_ **Polaris** \_\_\_\_\_ (name of star)
32. \_\_\_\_\_ **Canes Venatica** (name of constellation)
33. \_\_\_\_\_ **southern** \_\_\_\_\_ (northern, southern)
34. \_\_\_\_\_ **Libra** \_\_\_\_\_ (name of constellation)
35. \_\_\_\_\_ **kk** \_\_\_\_\_ (jj,kk,ll)
36. \_\_\_\_\_ **M57 or Ring Nebula** \_\_\_\_\_ (name of object)
37. \_\_\_\_\_ **Lyra** \_\_\_\_\_ (name of constellation)
38. \_\_\_\_\_ **Cas A** \_\_\_\_\_ (name of object)
39. \_\_\_\_\_ **Cassiopeia** \_\_\_\_\_ (name of constellation)
40. \_\_\_\_\_ **M1 Crab Nebula** \_\_\_\_\_ (name of object)
41. \_\_\_\_\_ **X-Ray** \_\_\_\_\_ (Radio, Microwave, IR, Visible,UV, X-ray, Gamma-ray )
42. \_\_\_\_\_ **vi** \_\_\_\_\_ (i,ii,iii,iv,v,vi,vii,viii,ix,x,xi,xii,xiii,xiv,xv,xvi,xvii,xviii)
43. \_\_\_\_\_ **iv** \_\_\_\_\_ (i,ii,iii,iv,v,vi,vii,viii,ix,x,xi,xii,xiii,xiv,xv,xvi,xvii,xviii)
44. \_\_\_\_\_ **xvi** \_\_\_\_\_ (i,ii,iii,iv,v,vi,vii,viii,ix,x,xi,xii,xiii,xiv,xv,xvi,xvii,xviii)
45. \_\_\_\_\_ **Supernova Remnant** \_\_\_\_\_ (stage of evolution)
46. \_\_\_\_\_ **Large Magellanic Cloud** \_\_\_\_\_ (name of object)
47. \_\_\_\_\_ **UV** \_\_\_\_\_ (Radio, Microwave, IR, Visible,UV, X-ray, Gamma-ray )
48. \_\_\_\_\_ **Globular Cluster** \_\_\_\_\_ (type of star cluster)
49. \_\_\_\_\_  **$\beta$**  \_\_\_\_\_ ( $\alpha,\beta$ )
50. \_\_\_\_\_ **Spiral** \_\_\_\_\_ (type of galaxy)
51. \_\_\_\_\_ **gg** \_\_\_\_\_ (cc,dd,ee,ff,gg)
52. \_\_\_\_\_ **xii** \_\_\_\_\_ (i,ii,iii,iv,v,vi,vii,viii,ix,x,xi,xii,xiii,xiv,xv,xvi,xvii,xviii)
53. \_\_\_\_\_ **t** \_\_\_\_\_ (o,p,q,r,s,t,u)
54. \_\_\_\_\_ **xiii** \_\_\_\_\_ (xiii,xviii)
55. \_\_\_\_\_ **xxi** \_\_\_\_\_ (xix,xx,xxi)
56. \_\_\_\_\_ **farther** \_\_\_\_\_ (closer, farther)
57. \_\_\_\_\_ **star formation** \_\_\_\_\_ (stage of evolution)
58. \_\_\_\_\_ **Blue Stragglers** \_\_\_\_\_ (term for stars)
59. \_\_\_\_\_ **hotter** \_\_\_\_\_ (hotter,colder)
60. \_\_\_\_\_ **xxii** \_\_\_\_\_ (xxii,xxv,xxvi)
61. \_\_\_\_\_ **Mira** \_\_\_\_\_ (name of star)
62. \_\_\_\_\_ **xxiv** \_\_\_\_\_ (xxiii,xxiv)
63. \_\_\_\_\_ **xxiii** \_\_\_\_\_ (xxiii,xxiv)
64. \_\_\_\_\_  **$\alpha$**  \_\_\_\_\_ ( $\alpha,\beta,\gamma,\delta,\epsilon$ )

65. \_\_\_\_\_  $\delta$  \_\_\_\_\_ ( $\alpha, \beta, \gamma, \delta, \epsilon$ )      69. \_\_\_\_\_ **Sirius** \_\_\_\_\_ (Sirius, Betelgeuse)  
66. \_\_\_\_\_  $\epsilon$  \_\_\_\_\_ ( $\alpha, \beta, \gamma, \delta, \epsilon$ )      70. \_\_\_\_\_ **Betelgeuse** \_\_\_\_\_ (Sirius, Betelgeuse)  
67. \_\_\_\_\_  $\gamma$  \_\_\_\_\_ ( $\alpha, \beta, \gamma, \delta, \epsilon$ )      71. \_\_\_\_\_ **Betelgeuse** \_\_\_\_\_ (Sirius, Betelgeuse)  
68. \_\_\_\_\_  $\beta$  \_\_\_\_\_ ( $\alpha, \beta, \gamma, \delta, \epsilon$ )

72. \_\_\_\_\_

- 0.5) Main Sequence Departure
- 0.5) Helium Fusion Ceases
- 0.5) Sub-giant
- 0.5) Hydrogen Fusion in Shell
- 0.5) Helium Flash
- 0.5) Red Giant
- 0.5) Carbon Core
- 0.5) Planetary Nebula
- 0.5) White Dwarf
- 0.5) Cooling

73. \_\_\_\_\_

- 0.5) Departure from Main Sequence
- 0.5) Turn-off Point
- 0.5) Higher Mass or Brighter or Hotter -> Leave Main Sequence Sooner
- 0.5) Blue Stragglers
- 0.5) Horizontal Branch
- 0.5) Giants

74. \_\_\_\_\_

- 0.5) Same Blackbody Background
- 0.5) Absorption by Different Elements
- 0.5) Multiple Lines Per Element
- 0.5) Different Elements Ionized at Different Temperatures
- 0.5) Specifically Mentions Either Hydrogen
- 0.5) Specifically Mention any other Element

75. \_\_\_\_\_

- 0.5) Mention Cas A or Supernova Remnant
- 0.5) Mention Visible (or Optical) or Mention X-Ray
- 0.5) Makes Connection Between Different Radiation Types and Energy
- 0.5) Distinguishes temperatures or processes at different parts of the remnant
- 0.5) Mention Absorption
- 0.5) Describes the Appearance of the Images