

Team Number: _____ Team School/Name: _____

Team Member Names: _____

PART I Answer Sheet

| | | | | | |
|-------|--|------|--|------|--|
| Name | | | | Date | |
| Class | | Quiz | | | |

Key
Version
A
B
C
D
E

Student ZipGrade ID

| | A | B | C | D | E | | A | B | C | D | E | | | | | | |
|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|
| 1 | | | | | | 11 | | | | | | 31 | | | | | |
| 2 | | | | | | 12 | | | | | | 32 | | | | | |
| 3 | | | | | | 13 | | | | | | 33 | | | | | |
| 4 | | | | | | 14 | | | | | | 34 | | | | | |
| 5 | | | | | | 15 | | | | | | 35 | | | | | |
| 6 | | | | | | 16 | | | | | | 36 | | | | | |
| 7 | | | | | | 17 | | | | | | 37 | | | | | |
| 8 | | | | | | 18 | | | | | | 38 | | | | | |
| 9 | | | | | | 19 | | | | | | 39 | | | | | |
| 0 | | | | | | 20 | | | | | | 40 | | | | | |
| | A | B | C | D | E | | A | B | C | D | E | | A | B | C | D | E |
| 1 | | | | | | 21 | | | | | | 41 | | | | | |
| 2 | | | | | | 22 | | | | | | 42 | | | | | |
| 3 | | | | | | 23 | | | | | | 43 | | | | | |
| 4 | | | | | | 24 | | | | | | 44 | | | | | |
| 5 | | | | | | 25 | | | | | | 45 | | | | | |
| 6 | | | | | | 26 | | | | | | 46 | | | | | |
| 7 | | | | | | 27 | | | | | | 47 | | | | | |
| 8 | | | | | | 28 | | | | | | 48 | | | | | |
| 9 | | | | | | 29 | | | | | | 49 | | | | | |
| 10 | | | | | | 30 | | | | | | 50 | | | | | |

Teachers: Hold paper on flat surface when grading.
Be aware of bright lights and shadows.

Students: Fill circles completely with black ink or pencil.
Erase all stray marks completely.

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Team Number: _____

PART II Answer Sheet

- * 25. Distance to the Type I Cepheid in parsec: _____
Distance to the Type I Cepheid in light years: _____
26. Energy radiated by star: _____
27. Temperature of star: _____
- * 28. a. Radius (meters) _____
b. Luminosity in L_{\odot} _____
c. Luminosity in Watts _____
d. What type of star? _____
- * 29. a. Total mass of the two stars combined _____
b. Mass of star A in solar masses _____ in kg _____
Mass of star B in solar masses _____ in kg _____
- * 30. Explain the differences in the spectra: _____
31. Distance in parsecs? _____
32. a. Luminosity (Suns) _____
b. Luminosity (Watts) _____
c. Distance (meters) _____
d. Distance (light years) _____
33. a. Approximate radius in meters _____
b. Radius in solar radii _____
c. Spectral class _____

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Team Number: _____

PART III Answer Sheet

34. Order: _____

35. Type of feature: _____

36. Why is point B greater than D in image B-1?

37. What caused this? _____

38. Which image shows RCW 103? _____

39. What is the likely mass? _____

40. Which image shows S Dor? _____

41. What class? _____

42. Classification? _____

43. Stage? _____

44. What are pulsars?

45. Which is Geminga? _____

46. Which image is HR7151 A? _____

* 47. Claim to fame? _____

* 48. Type of star system? _____

49. Type of imagery?

D-1 _____ D-2 _____ D-3 _____

50. What features are most prominent in

D-1: _____

D-2: _____

D-3: _____

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