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| 1. The energy emitted per second by the Sun is greatest at a wavelength of about 500 nanometers. The energy emitted per second by a star having half the temperature of the Sun would be greatest at a wavelength of about
a) 1000 nm, in the infrared. | 6. c | 28. a |
| 2. Suppose the Sun's temperature went from 5,900 K to 11,800 K, but had the same size that it has now. How much more energy would the Sun emit per second?
16 times more | 7. a | 29. a |
| 3. If an object is a perfect blackbody then
it emits energy with a continuous distribution that peaks at a certain wavelength. The peak wavelength depends upon the temperature of the blackbody. | 8. e | 30. b |
| 4. On the cover page of this exam it says
a) TEST FORM "A" b) TEST FORM "B"
c) TEST FORM "C" d) TEST FORM "D" | 9. b | 31. b |
| 5. What is energy flux?
The amount of energy per unit time that is incident on a 1 meter square detector | 10. b | 32. e |
| | 11. c | 33. c |
| | 12. d | 34. d |
| | 13. c * | 35. a |
| | 14. a | 36. b |
| | 15. a | 37. a |
| | 16. a | 38. a |
| | 17. c | 39. b |
| | 18. a | 40. a |
| | 19. e | 41. a |
| | 20. b | 42. c |
| | 21. d | 43. b |
| | 22. d | 44. b |
| | 23. e | 45. a |
| | 24. c | 46. a |
| | 25. a | 47. a |
| | 26. a | 48. c |
| | 27. c | 49. c |
| | | 50. d |