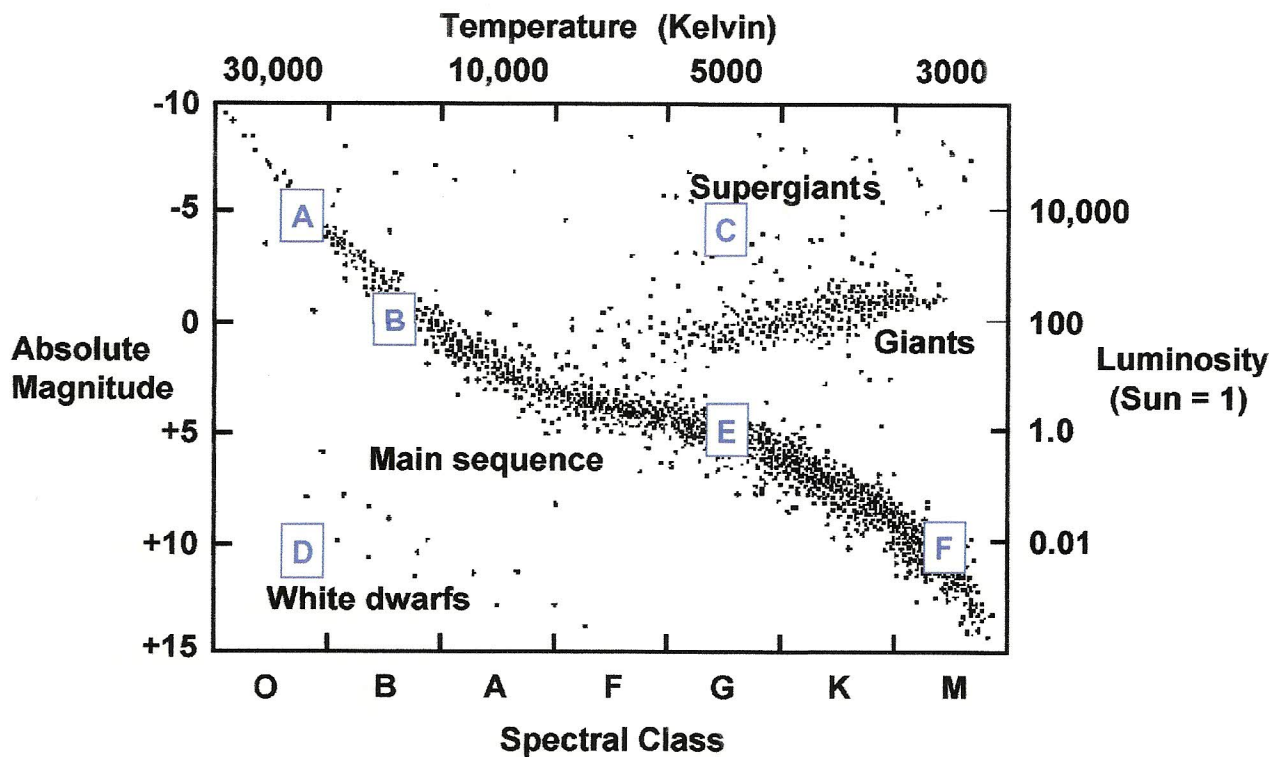


TEAM NUMBER _____

Use the HR diagram below to answer problems 27 through 39:



27. Of the stars labeled on the diagram above, which **two** are the two hottest? (2 points) A B C D E F
28. Of the stars labeled on the diagram above, which **two** are the two brightest? (2 points) A B C D E F
29. Of the stars labeled on the diagram above, which one has the largest radius? A B C D E F
30. Of the stars labeled on the diagram above, which is most like our sun? A B C D E F
31. Is star A or B brighter? A B
32. How many times brighter is the brighter star in problem 31 compared to the dimmer star? _____
33. Does star A or C radiate more energy per unit area? A C
34. How many times more energy does the more energetic star radiate in problem 33 compared to the less energetic star? _____
35. Does star A or F have a larger radius? A F
36. How many times larger is the radius of the larger star in problem 35 compared to the smaller star? _____
37. At what wavelength does the star E radiate the most energy? _____
38. If both star B and star D appear equally bright in the night sky, which is farther away from the observer? B D
39. How many times further away is the far star in problem 38 compared to the near star? _____