

- 8 The Hertzsprung-Russell diagrams W, X, Y and Z below show a star cluster at various times when the star cluster is in different stages of evolution.

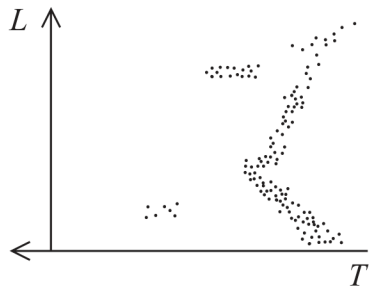


Diagram W

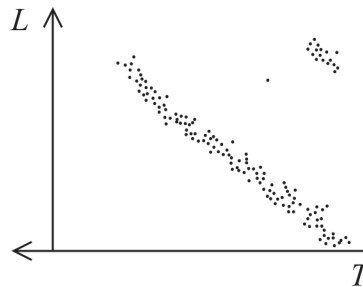


Diagram X

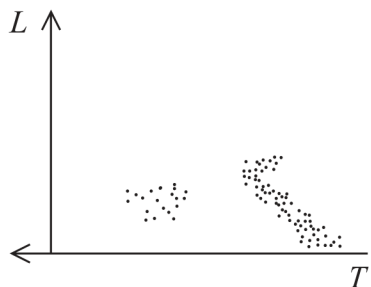


Diagram Y

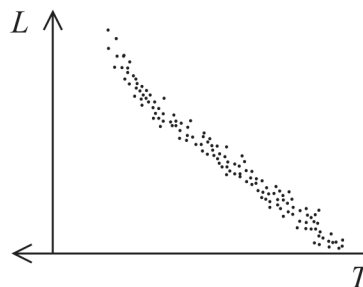


Diagram Z

Which of the diagrams represents the cluster in the final stage of evolution?

- ☐ A W, as there are white dwarf stars and red giants in the cluster.
- ☐ B X, as there are red giants and no white dwarf stars in the cluster.
- ☐ C Y, as there are white dwarf stars but no red giants in the cluster.
- ☐ D Z, as all the stars in the cluster are in the main sequence.

(Total for Question 8 = 1 mark)