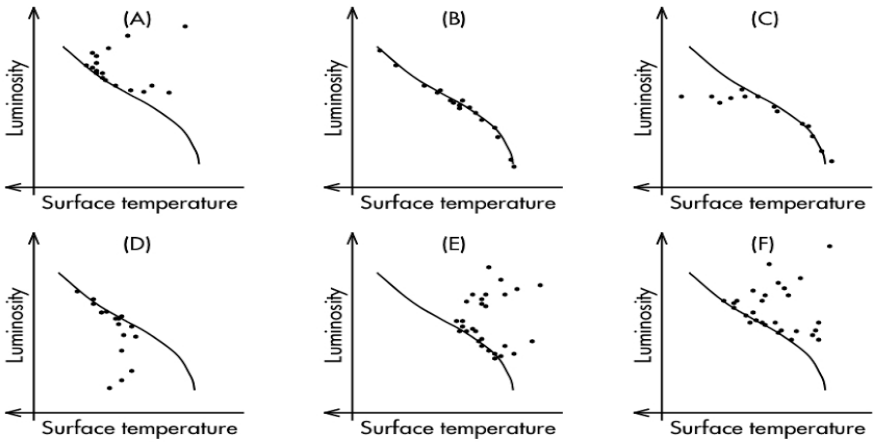
Star Cluster Ages

3. Shown below are H-R diagrams of six separate star clusters (A)-(F). The location of the main sequence curve is also indicated on each H-R diagram. Each star clusters has a different age, but all the stars within a given cluster have the same age (*i.e.*, they all started from the same molecular cloud at the same time), but have a range of different masses.

(a) Cross out three star clusters whose H-R diagrams are not physically possible. Briefly explain why each of these star clusters are not possible.

"Impossible" star clusters: _____, _____, _____.

Explanation:

(b) Rank the three remaining star clusters from youngest to oldest. Indicate ties, if any.

_____ _____ _____
(youngest) (oldest)