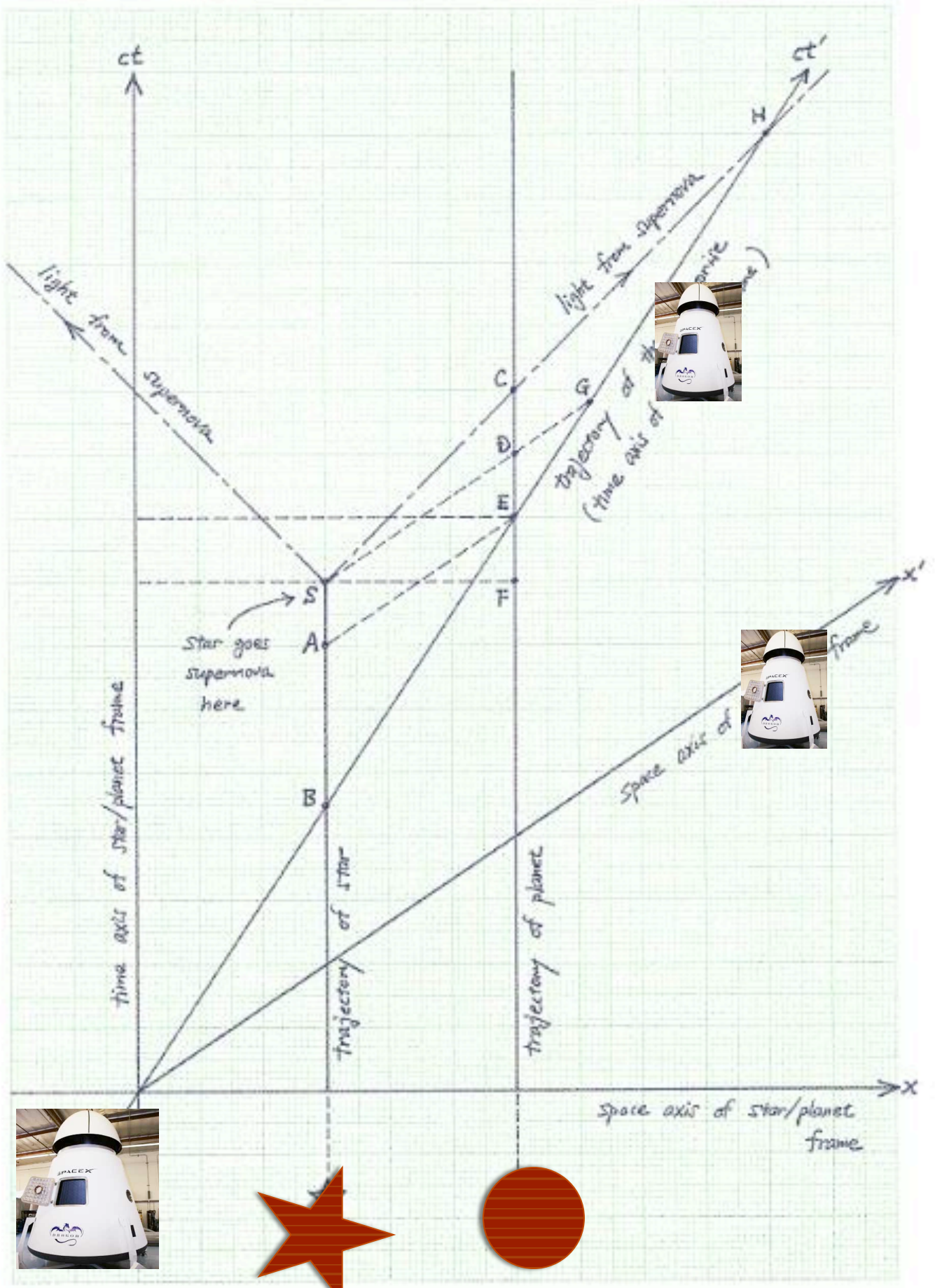


The sun is about to go supernova. Earth is inhabited only by a few space-cadets. The Falcon9 with the Dragon of SpaceX is sent to rescue them. The Falcon passes by earth and beams them up into the Dragon capsule without stopping. The sun goes supernovae at space-time point S and light goes at both directions along the light worldline.

1. at which space time point does the Falcon9 arrive on earth?
2. in the frame moving with the Falcon9 at which space time is the star when the Falcon9 arrives on earth?
3. In the Falcon9 frame does the Falcon9 arrive on earth before or after the sun goes supernova?
4. in the frame fixed to the planet, does the Falcon9 arrive before the sun goes supernova or after?
5. Do the space-cadets on earth see the supernova explosion before the Falcon arrives or after?



1. at which space time point does the Falcon9 arrive on earth? E
2. in the frame moving with the Falcon9 at which space time is the star when the Falcon9 arrives on earth? A
3. In the Falcon9 frame does the Falcon9 arrive on earth before or after the sun goes supernova? before
4. in the frame fixed to the planet, does the Falcon9 arrive before the sun goes supernova or after? after
5. Do the space-cadets on earth see the supernova explosion before the Falcon arrives or after? after (at H)