

The space shuttle has deployed a 20 km-long tether. At the end, there is a relatively light satellite. The shuttle is at the bottom end and the satellite at the top.

The tether is cut. What happens?

A Nothing, the satellite and space shuttle stay at their pre-cut altitude 0

B The satellite climbs significantly 0

C The shuttle climbs significantly 0

D The shuttle lowers its altitude significantly 0

E The shuttle lowers its altitude slightly 0

What's a rideshare launch?

- A A rocket that deploys a few satellites into very well defined orbits 0
- B A rocket that deploys tens to hundred satellites into a defined injection orbit 0
- C A rocket that injects satellites into different orbits (there are multiple injection/manoeuvres sequences) 0

What are example of old space?

A	The Starlink constellation	0
B	The Hubble Space Telescope	0 
C	The ISS	0 
D	The James Webb Space Telescope	0 
E	Umbra - A private radar observation constellation	0

What is a satellite constellation?

- A A group of satellites working together 0
- B A group of satellites that appear just like astronomical constellation in the night sky 0
- C A group of satellites made by the same manufacturer that have different missions 0
- D A group of satellites that have the same mission, but different manufacturer, orbits and operations 0

What does street of coverage mean?

- A A region devoid of coverage 0
- B The region of coverage by a single satellite 0
- C The number of satellites needed for contiuous global coverage 0
- D A region of continuous coverage by mutplpe satellites 0

Which statement about the Outer Space Treaty is wrong?

A The Treaty bans the use of weapons of mass destruction in space 0

B The Treaty states that space exploration should be for the benefit for all 0

C The Treaty grants territorial claims to the first arrived state 0 

D The State that launches a space object retains jurisdiction and control over that object. 0

What is the probability of collision P_c ?

- A P_c is the probability that two objects will be at the same altitude and inclination 0
- B P_c is the probability that the miss distance between two objects is less than the sum of their safety-radii. 0
- C P_c is the probability that the radio emissions of 2 objects collide 0
- D P_c is the collision probability between 2 objects which cannot be computed analytically 0

What statement is wrong about a collision avoidance (COLA) manoeuvre?

- A COLA aims at maximising the miss-distance 0
- B COLA aims at minimising the Δv 0
- C COLA occurs one to a few orbits before TCA 0
- D To compute the COLA, one can assume that there is only one encounter and no other object 0