

Topic 6 - Above the Atmosphere and Under Control

1. The science of rocketry relies on a basic physics principle: For every action –
 - A. Forces will remain constant
 - B. There is an equal and opposite reaction
 - C. Distance and speed will be decreased
 - D. There is a reason to overcome gravity
2. The three basic parts of a rocket include all of the following, except ...
 - A. fuel
 - B. payload
 - C. nosecone
 - D. structural elements
3. Rockets have been around a long time and were originally used as...
 - A. fireworks and weapons
 - B. ceremonial celebrations
 - C. modes of transportation
 - D. fuel for ceremonial fires
4. 1926 - Robert Goddard launched the world's first...
 - A. payload rocket
 - B. multiple-stage spacecraft
 - C. orbital achieving spacecraft
 - D. liquid-propellant rocket
5. All fuels create exhaust which comes out the end of the rocket. The speed of the exhaust leaving the rocket is called the *exhaust velocity*, which determines the ...
 - A. speed of the rocket
 - B. range of the rocket
 - C. direction of the rocket
 - D. altitude of the rocket
6. A bomb that is powered by a rocket engine like the *V-2 rocket* is called a ...
 - A. hydrogen bomber
 - B. atomic reaction
 - C. ballistic missile
 - D. scuba missile
7. In the 1960's the Americans and the Russians needed to use computers to calculate and control their spacecraft in orbit. The first computers on the ground ...
 - A. were laptops
 - B. used letters only
 - C. were not reliable
 - D. filled large rooms
8. A method of acceleration which enables a spacecraft to achieve extra speed by using the gravity of a planet is called ...
 - A. elliptical acceleration
 - B. *gravitational assist*
 - C. momentum acceleration
 - D. orbital velocity
9. Satellites can be natural or artificial – the only natural satellites in this list ...
 - A. Moon
 - B. Anik 1
 - C. LANDSAT
 - D. RADARSAT
10. The GPS system involves the use of 24 satellites positioned in orbit, allowing for 3 to always be
 - A. at the right angle to deflect the radio signals
 - B. visible at night to ensure visibility in the dark
 - C. above the horizon to be used at any one time
 - D. above or below the lowest object in the sky