

The earth has gravity, so all objects on the ground will not fly away from the earth, even the moon, which is 380,000 kilometers away from the earth, can also be attracted by the earth and revolve around the earth forever.

the earth have gravitatio , floor see everything object therefore All can fly mythical the earth , far from the earth 380,000 kilometer
dìqiú jùyǒu yǐnlì , dìmiànshàng de yīqiē wùtǐ yīnér dū bù huì fēi lí dìqiú , jiùshì yuǎnlí dìqiú 38wàn gōnglǐ de

地球具有引力,地面上的一切物体因而都不会飞离地球,就是远离地球 38 万公里的

the moon , can quilt the earth attract live , forever wind move the earth work .
yuèqiú , yě néngbèi dìqiú xīyǐn zhù , yǒngyuǎnràozháo dìqiú yùnzhuǎn .

月球,也能被地球吸引住,永远绕着地球运转。

Why can the artificial satellite revolve around the earth without falling down for a long time? This is because after the artificial satellite is launched, its speed is extremely fast.

why? artificial can wind move the earth work , time leave out down come ? this because artificial shoot go out
wèishíyāo rénzàowèixīngnéngràozháo dìqiú yùnzhuǎn , hěnjǐu yě bù luò xià láí ní ? zhèshì yīnwèi rénzàowèixīng fāshè chūqù

为什么人造卫星能绕着地球运转,很久也不落下来呢?这是因为人造卫星发射出去

after , it speed extremely rapid , the earth gravitatio rise centripeta act on , make satellite do uniform circumfere move , make it
yǐhòu , tā de sùdù jí kuài , dìqiú de yǐnlì qǐ xiàngxīnlì de zuòyòng , shǐwèixīngzuò yúnsù yuánzhōuyùndòng , shǐ tā bù

以后,它的速度极快,地球的引力起向心力的作用,使卫星做匀速圆周运动,使它不

can fall into the earth .
huì luòrù dìqiú .

会落入地球。

How much speed does the artificial satellite need to overcome the gravity of the earth and move around the earth at a uniform speed? According to the calculation of scientists, a speed of 7.9 km/s can make the artificial satellite orbit the earth.

artificial need many big speed ability can the earth gravitatio and wind move the earth do uniform circumfere move ? according
rénzàowèixīng xūyào duō dà sùdù cáinéng kèfú dìqiú de yǐnlì bìngràozháo dìqiú zuò yúnsù yuánzhōuyùndòng ní ? gēnjù

人造卫星需要多大速度才能克服地球的引力并绕着地球做匀速圆周运动呢?根据

scientist count , speed reach 7.9 thousand m/s at once can make artificial wind move the earth work .
kēxuéjiā de jìsuàn , sùdù dádao 7.9 qiān mǐ/miǎo jiùnéngshǐ rénzàowèixīng ràozháo dìqiú yùnzhuǎn .

科学家的计算,速度达到 7.9 千米/秒就能使人造卫星绕着地球运转。

This speed is called the first cosmic speed.

this speed shout first universe speed .
zhègè sùdù jiào dìyī yǔzhòu sùdù .

这个速度叫第一宇宙速度。

If the speed is greater than this and reaches 11.2 km/s, the artificial satellites flying high in the sky can completely overcome the gravity of the earth and revolve around the sun, never falling back to the earth.

if greater this speed reach 11.2 thousand m/s , fly see high artificial at once can complete the earth
rúguǒ dàyú zhègè sùdù dádao 11.2 qiān mǐ/miǎo , fēishànggāokōng de rénzàowèixīng jiù kěyǐ wánquán kèfú dìqiú de

如果大于这个速度达到 11.2 千米/秒,飞上高空的人造卫星就可以完全克服地球的

gravitatio wind move sun work , forever leave out circle the earth see come .
yǐnlì ràozháo tàiyángyùnzhuǎn , yǒngyuǎn bù luò huí dào dìqiú shànglái .

引力绕着太阳运转,永远不落回到地球上 来。

The speed at which an object can leave the earth forever is called the second cosmic speed.

this can make object forever depart the earth speed , shout second universe speed .
zhègè néngshǐ wùtǐ yǒngyuǎn líkāi dìqiú de sùdù , jiào dièr yǔzhòu sùdù .

这个能使物体永远离开地球的速度,叫第二宇宙速度。

The object reaching the second cosmic velocity is still attracted by the gravitational force of the sun. If the object is to fly to the universe beyond the solar system, its velocity must be equal to or greater than 16.7 km/s. This velocity is called the third cosmic velocity.

reach second universe speed object return receive move sun gravitatio attract , demand think yield object fly solar apart from
dádao dièr yǔzhòu sùdù de wùtǐ huánshòuzháo tàiyáng yǐnlì de xīyǐn , yàoxiǎngràng wùtǐ fēi dào tàiyángxì yǐwài de

达到第二宇宙速度的物体还受着太阳引力的吸引,要想让物体飞到太阳系以外的

universe China go , have to make it speed equal greater 16.7 thousand m/s , this speed shout third universe speed .
yǔzhòu zhōng qù , bìxū shǐ tā de sùdù dēngyú dào dàyú 16.7 qiān mǐ/miǎo , zhègè sùdù jiào disān yǔzhòu sùdù .

宇宙中去,必须使它的速度等于到大于 16.7 千米/秒,这个速度叫第三宇宙速度。

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