

BGR-1 D-11 C

BGR-1 D-11 C Margulan Erlanovich Ismoldayev

Theory
Minimum velocity of a projectile
Cover sheet

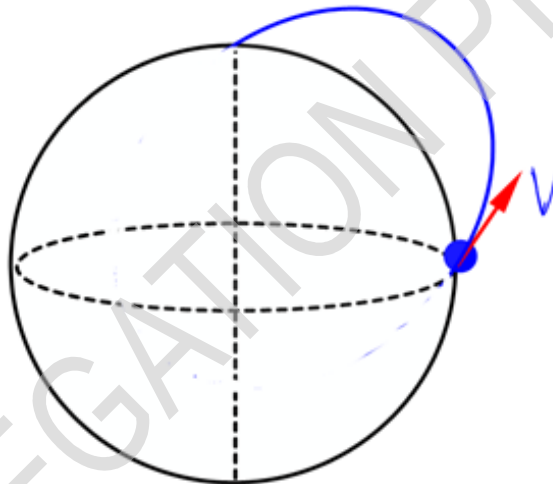
Please return this cover sheet together with all the related question sheets.

Minimum velocity of a projectile (15 points).

11.1	What is the minimum speed with which a projectile must be launched from the Earth's surface at the equator such that the projectile reaches the north pole?	12.0pt
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11.2	Find the eccentricity of the trajectory described by the projectile	3.0pt
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You may ignore the rotation of the Earth. Also assume the earth surface is spherical.



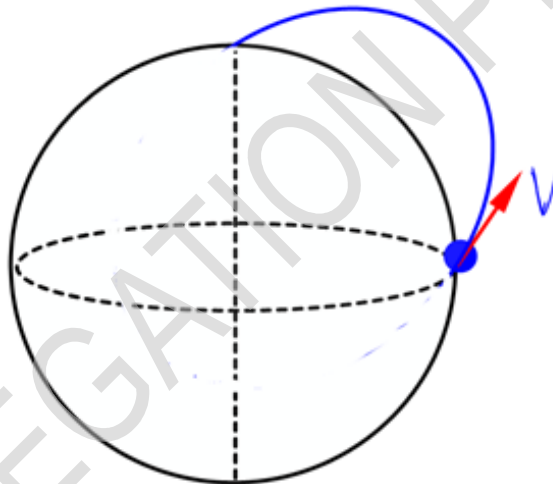
Reference Chart

Минимална начална скорост на снаряд (15 точки).

11.1 С каква най-малка начална скорост трябва да се изстреля един снаряд от земната повърхност на Екватора, за да достигне Северния полюс? 12.0pt

11.2 Намерете ексцентрицитета на траекторията, която снарядът описва. 3.0pt

Можете да пренебрегнете въртенето на Земята около оста. Също така, приемете, че Земята е идеална сфера.



Схема

Theory



BGR-1 D-11 A-1

A11-1

English (Official)

Minimum velocity of a projectile (15 points).

11.1 (12.0 pt)

$v_{min} =$

11.2 (3.0 pt)

$e =$

DELEGATION PRINT

Theory



BGR-1 D-11 W-1

W11-1

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Theory



BGR-1 D-11 W-2

W11-2

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Theory



BGR-1 D-11 W-3

W11-3

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Theory



BGR-1 D-11 W-4

W11-4

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