

2011, " :
652,917521 :

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$$100 = 33\frac{1}{3} \times 3 ; \quad 33\frac{1}{3} -$$

)1(: _____

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)1(

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$$g \\ 10 \text{ m/s}^2$$

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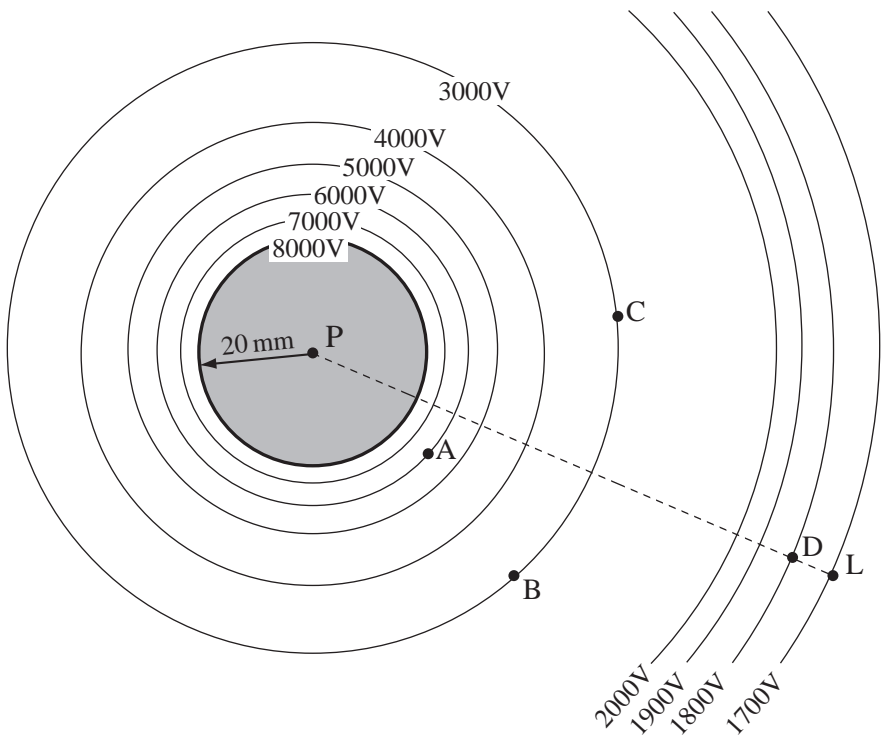
).

; $33\frac{1}{3}$ — (

.1

.8000V

, 20 mm



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8.0 nC

: C A (8.0 · 10⁻⁹C)
) 8(. C B ,B A

1800V 1700V

1.0 nC)1(

.D L

1.0 nC)2(

.D L

. 1800V 1700V)3(

) 12(

)4(-)1(

) 4 $\frac{1}{3}$ (. _____ P

0)1(

8000 V)2(

9000 V)3(

)4(

+ 652,917521 ' "

$\epsilon = 24V$

.2

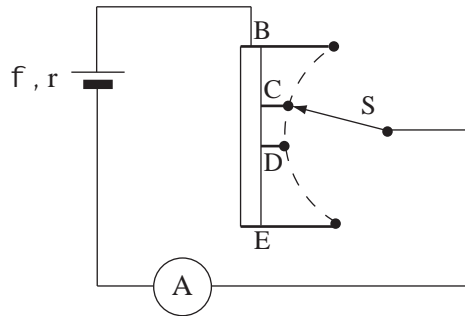
. E , D , C , B

S

. $r = 2\Omega$

. E , D , C , B

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_____ , S)1(.

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) ()1(- S)1(.

. $I_{\min} = 0.8A$

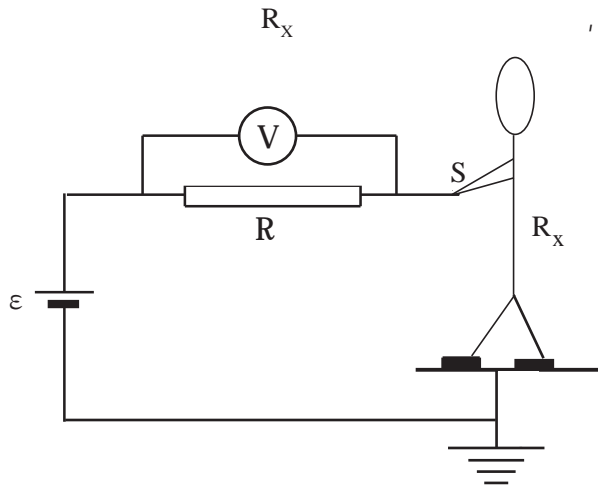
)2(

. $I = 1.5 A$

) 10(

). : (

. 0.005 A



S

$\epsilon = 48 \text{ V}$

.)" "(

, $R = 10^6 \Omega$

.R

V

___ 0.005 A

, R_x ,

V

, $R_x = R \cdot \frac{\epsilon - V}{V}$:

. R_x

. $V = 9.6 \text{ V}$

) 7(

)1(

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.6 kV

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+6 kV

) 6(. ?

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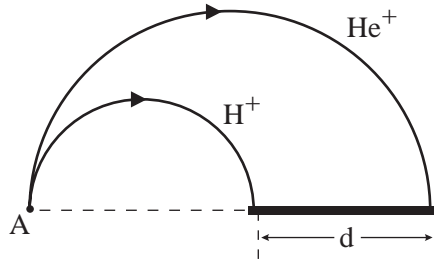
)2(

) 8 $\frac{1}{3}$ (

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(He⁺ , ,)q_H m_H (H⁺ , .4
 ,)q_{He} = q_H m_{He} = 4m_H
 .B̄ , A .V



) α ___ ?

) α ___ ?

B , V , q_H , m_H

H⁺)1(.
 He⁺)2(.

___ ?

) 12

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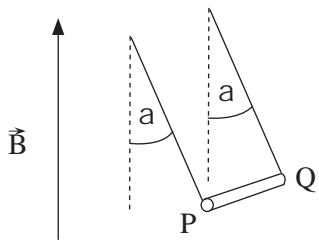
) 9¹/₃(

, B̃ ,

.5

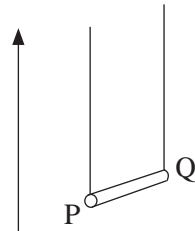
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, B̃



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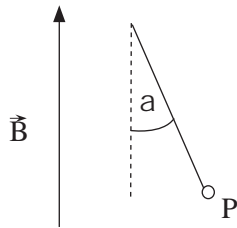
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I ,

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3.5	3	2.5	2	1.5	1	I (A)
19.3	16.7	13.5	10.0	8.5	5.7	α (°)

) α I , , α ,

)1(.

)2(

)1(-

)1(-

)3(

) 1α

. m = 10gr

ℓ = 0.2m

PQ

) 7¹/₃(.B

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