

9

“ -2010” 9

- ! , , ' ;
- ;
- 25% ;
- 30 ;
- _____ ;
- -75 .

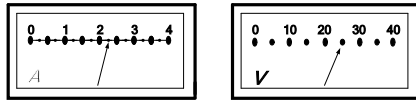
1 – 10

1. , ?

- : ; : ; : ; : ;

2.

- : 4 , 2,25 , 40 , 25 ; : 5 , 2,5 , 35 , 30 ;
- : 4 , 2,25 , 40 , 29 ; : 4,1 , 2,5 , 40 , 20 .



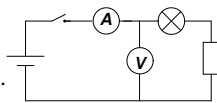
3.

($q < 0$),

- : ; : ; : ; : ;

4.

- : ; : ; : ;



5.

- : ; : ; : ;

6.

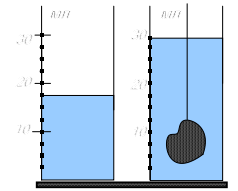
- : ; : ; : ;

7.

- : 1 ; : 1 ; : 12 ; : 12 ; : 60 .

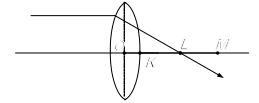
8.

- : 2,5 ; : 10 ; : 12,5 ;
- : 17,5 ; : 30 .



9.

- : ; : OL; : OM; : LM; : KL.



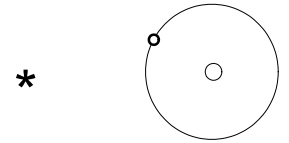
10.

- : ; : ; : ;

11 – 20

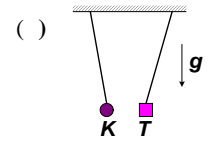
11.

- : ; : ;



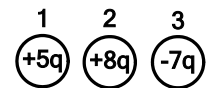
12.

- ($q < 0$), (, 2- , 3-) ... ()
- : 1 2; : 1 3; : 2 3; : 1; : 2.



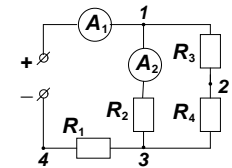
13.

- : +1q; : -1q; : +2q; : -2q; : +6q.



14.

- : 1-3, 2; : 3-4, 1; : 1-3, 1 2; : 1-3, 1; : 3-4, 2.



15.

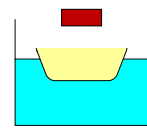
- : ; : ;

16.

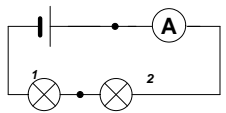
- : ; : ;

17. ... ?

24. ...



18. ($R=0$) ,
 ($\uparrow -$, $\downarrow -$, $\leftrightarrow -$).



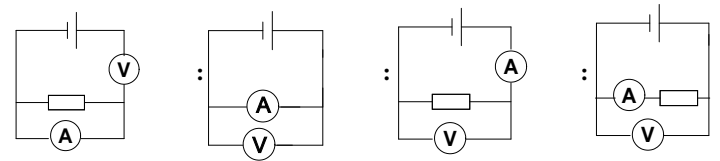
: $1\uparrow, 2\uparrow, \leftrightarrow$; : $1\uparrow, 2\downarrow, =0$; : $1\downarrow, 2\uparrow, \uparrow$; : $1\downarrow, 2\uparrow, \leftrightarrow$.

25. ... ? ...

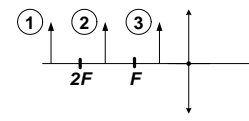
19. ...

26. ...

20. ?



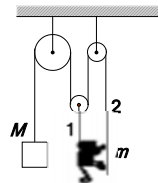
27. ... ?
 : 1; : 2; : 3; : 1 2; : 2 3.



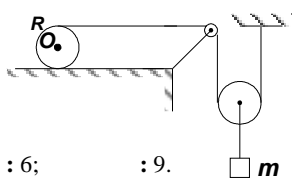
21 - 30

21. : $\rho v \pi d^2 t / 4$? $\rho -$, $v -$,
 $\pi -$, $t -$, $d -$.

28.) . m , (1 ? 2 .

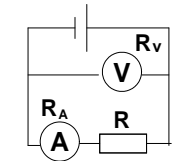


22. R , m .
 $3 \pi R$.



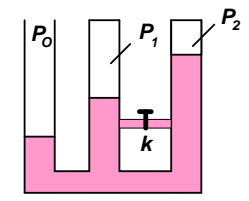
: ; : 3; : ; : 6; : 9.

23. ? ()

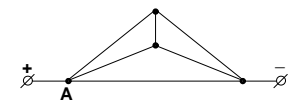


: $R_V \gg R_A \approx R$; : $R \ll R_A \approx R_V$; : $R_V \gg R \gg R_A$;
 : $R \gg R_A \approx R_V$; : ;

29. ... 1. ... 2.
 ($\leftarrow -$, $\rightarrow -$, $\leftrightarrow -$).



30. = =) (= = =



: 1 ; : 2 ; : 3 ; : 4 ; : 6 .