

آزمون ورودی دبیرستان سازمان انرژی اتمی ایران

خرداد ۱۳۹۰

120 :

1- $\begin{matrix} 4 & A & 5 \\ 2 & 3 & A \\ \hline A & B & C \end{matrix}$ $\begin{matrix} C & B & A \\ A & B & C \\ 16 & (1) \\ 9 & (3) \end{matrix}$

2-

6	11/9 8
10	15/9 12
	20 16

 $\begin{matrix} 14 \\ 8 & (2) \\ 6 & (4) \\ 7 & (1) \\ 9 & (3) \end{matrix}$

3- $\begin{matrix} 128 & (2) \\ 136 & (4) \\ 124 & (1) \\ 132 & (3) \end{matrix}$

4- $\begin{matrix} x & 2 \\ d & . \\ d & . \\ d & . \end{matrix}$ $\begin{matrix} 2 & d \\ 3 \\ 1 \\ 2 & (1) \end{matrix}$

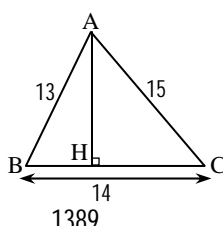
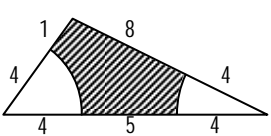
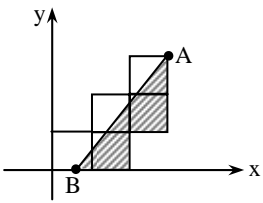
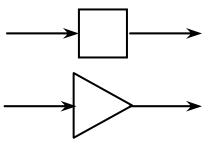



5- $\begin{matrix} -6 & (4) \\ 6 & (3) \\ 2 & (2) \end{matrix}$ $\begin{matrix} (2) \\ (4) \\ (1) \\ (3) \end{matrix}$

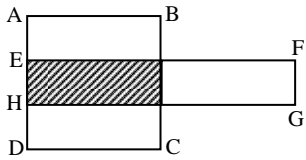
6- $\begin{matrix} 9 \\ 4 \\ 160 & (2) \\ 364 & (4) \\ 27 \\ 9 & (1) \\ 484 & (3) \\ 27 \end{matrix}$

7- $\begin{matrix} \%25 \\ \%40 \\ \%20 \end{matrix}$ $\begin{matrix} 8 & (4) \\ 4 & (3) \\ 2 & (2) \\ 1 & (1) \end{matrix}$



	$B \quad x \quad x^2 \quad 1 \quad A \quad x^2 \quad 1 \quad A^2 \quad B(B-2A)$	-8				
x^2-2x+1 (4)	x^4-x^2+1 (3)	x^4-x^2 (2)	x^2 (1)			
	BC	C				
	D	AB	AC	D	-9	
	$3\sqrt{20}$ (2)	$3\sqrt{10}$ (1)				
	$\sqrt{20}$ (4)	$3\sqrt{6}$ (3)				
.()	1	1		-10	
	216 (4)	125 (3)	64 (2)	27 (1)		
A		O	E		-11	
$A = \{(x-1)(y-1) \mid x \in E, y \in O, x+y=20\}$						
81 (4)	80 (3)	72 (2)	70 (1)			
					-12	
		$3 \quad 2 \quad 1$				
)				
		.(
	(4)	3 (3)	2 (2)	1 (1)		
					-13	
	24 (4)	9 (3)	20 (2)	18 (1)		
	$\hat{ACB} = 58^\circ$	\hat{DCB}	\hat{BDC}	O	-14	
				\hat{DCA}		
		16 (2)		14 (1)		
		20 (4)		18 (3)		
	369				-15	
	369 (4)	116 (3)	126 (2)	963 (1)		
		$a(b(c(d(e))))$			-16	
	5 (4)	3 (3)	$4 \quad 3 \quad 2 \quad 1$	$d \quad c \quad b \quad a$		
			(2)	-5 (1)		
	A	4^{10}	1048576	$A = 2^{22}$	4^{10}	-17
	24 (4)	36 (3)	26 (2)	30 (1)		
a	c	(c)	b	a	-18
b	a	b	a	b	b	
	150 (4)	120 (3)	90 (2)	60 (1)		
	$MABC$	ABC			-19	
	3 (2)			$3\sqrt{2}$ (1)		
	5 (4)			4 (3)		

		$\frac{1}{4}$		-20															
9 (4)		5 (3)	3 (2)	2 (1)															
3	9a 2		(21122) ₃	3 a															
11 (4)		10 (3)	9 (2)	8 (1)															
	BH	AH	15 14 13	ABC															
				5 (1)															
				4 / 5 (2)															
				$\frac{40}{7}$ (3)															
				6 / 5 (4)															
			n 1 n	-23															
	1390	«1390	» n																
(4)	3 (3)	2 (2)		1 (1)															
)			99	-24															
			100																
34 (4)	33 (3)	32 (2)		31 (1)															
A {2 ⁴⁰⁰ 2, 2 ⁴⁰⁰ 4, 2 ⁴⁰⁰ 6, 2 ⁴⁰⁰ 8, 2 ⁴⁰⁰ 10, ... , 2 ⁴⁰¹ }			A	-25															
399 (4)	400 (3)	2 ⁴⁰⁰ (2)	2 ³⁹⁹ (1)																
<table border="1" data-bbox="397 972 580 1106"><tr><td></td><td>c</td><td>d</td><td>e</td><td>m</td></tr><tr><td>a</td><td>b</td><td>8</td><td>6</td><td>f</td></tr><tr><td>g</td><td>h</td><td>i</td><td>j</td><td></td></tr></table>		c	d	e	m	a	b	8	6	f	g	h	i	j		b 10, f 3 (2)		b 8, f 2 (1)	
	c	d	e	m															
a	b	8	6	f															
g	h	i	j																
	b 22, f 2 (4)		b 20, f 2 (3)																
(4)		AC 2 AB 3 Â 30	ABC	-27															
	3 (3)	2 (2)		1 (1)															
	(3)			-28															
	24 (2)		16 (1)																
	6 (4)		18 (3)																
40 (4)	43 (3)	62 (2)	15 ¹² 20 ³¹ 1	-29															
		5		-30															
	3	A B																	
	3		5																
	B																		
$\frac{1}{2}$ (2)			$\frac{3}{4}$ (1)																
$\frac{2}{3}$ (4)			$\frac{3}{5}$ (3)																
				-31															
a →  b →  c →  d	a c (b d (a c (
(4)	3 (3)	2 (2)	1 (1)																



%20 EFGH

%50

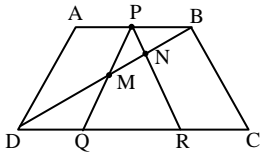
$$\frac{EF}{EH}$$

ABCD

$$\frac{5}{10} \left(\frac{2}{4} \right)$$

$$\frac{4}{8} \left(\frac{1}{3} \right)$$

-32



CD 8 AB 6

ABCD

$$\frac{PM}{NR}$$

AB P

$$\frac{1}{2} \left(\frac{2}{4} \right)$$

$$\frac{5}{6} \left(\frac{1}{3} \right)$$

-33

1111 (4)

1100 (3)

1000 1

1012 (2)

11

1001 (1)

-34

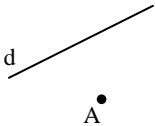
2	5			
			1	*
	3		4	
		4		
3				1

5 1

$$\frac{3}{5} \left(\frac{2}{4} \right)$$

$$\frac{2}{4} \left(\frac{1}{3} \right)$$

-35



d A

1

d

1/5

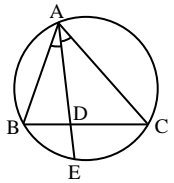
A

-36

$$\frac{2}{4} \left(\frac{2}{4} \right)$$

$$\frac{1}{3} \left(\frac{1}{3} \right)$$

-37



E

A

AD

DE

2

AC

6

AB

4

$$\frac{3}{4} \left(\frac{2}{3} \right)$$

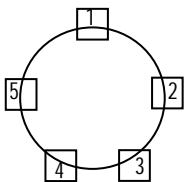
$$\frac{4}{8} \left(\frac{1}{3} \right)$$

-38

5 1

5

-39



$$\frac{1}{3} \left(\frac{5}{4} \right)$$

$$\frac{1}{5} \left(\frac{4}{3} \right)$$

$$\frac{2}{5} \left(\frac{2}{2} \right)$$

$$\frac{6}{2} \left(\frac{2}{2} \right)$$

$$\frac{2}{2} \left(\frac{2}{2} \right)$$

8 (4)

7 (3)

6 (2)

5 (1)

60 B

40

A

100

-40

C

B C A B

70 C

A (

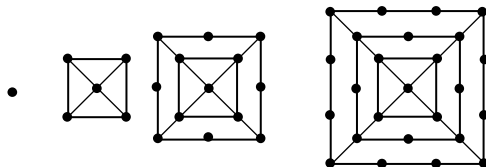
(4)

3 (3)

2 (2)

1 (1)

-41



25

13

$$\frac{185}{205} \left(\frac{2}{4} \right)$$

$$\frac{221}{181} \left(\frac{1}{3} \right)$$

آزمون ورودی

(3)	-21	(4)	-1
(1)	-22	(4)	-2
(2)	-23	(3)	-3
(2)	-24	(4)	-4
(1)	-25	(2)	-5
(4)	-26	(2)	-6
(2)	-27	(2)	-7
(3)	-28	(1)	-8
(3)	-29	(1)	-9
(4)	-30	(3)	-10
(2)	-31	(2)	-11
(4)	-32	(1)	-12
(4)	-33	(3)	-13
(3)	-34	(2)	-14
(4)	-35	(2)	-15
(4)	-36	(3)	-16
(1)	-37	(1)	-17
(1)	-38	(3)	-18
(1)	-39	(4)	-19
(3)	-40	(3)	-20