

# CUPT

## CUPT: China Undergraduate Physics Tournament

2016 2016 1

1.

China Undergraduate Physics Tournament CUPT  
International Young Physicist Tournament IYPT  
CUPT

CUPT

CUPT

IYPT

International Physicists' Tournament, IPT 2009 2015  
7 IPT

2010

IYPT

CUPT

12

17

2011

23

24

CUPT

1

2

2012

CUPT

35

36

2013

CUPT

38

39

2014

CUPT

38

39

15

3

2015

CUPT

48

49

21

CUPT

17

2.

### 2.1. CUPT

1

3-4

CUPT

## 2.2. CUPT

1

CUPT

1

2

:

CUPT

## 2.3.

CUPT

3

CUPT

## 2.4.

1

CUPT

3

## 3.

### 3.1.

**3.2.**

1 5 1-2

2 3 2 CUPT

1

3 5 3

1

4

**3.3.**

1 2-3

2 5-7

**4.**

**5.**

,

	1	2	3	4
1	Rep( )	Opp( )	Rev( )	Obs( )
2	Obs( )	Rep( )	Opp( )	Rev( )
3	Rev( )	Obs( )	Rep( )	Opp( )
4	Opp( )	Rev( )	Obs( )	Rep( )

	1
	1
	12
	2
	2
3	13
	3
	2
	4
	1
	4
	45

A)

B)

C)

D)

0.2

1)

2)

3)

1 10

× 3.0

3.0

× 2.0

× 1.0

2

+

/2+

/

-1

3 2 1

4 3 2 1

**6.**

1)

2)

3)

20%

50%

4)

51 2  
4 5  
 $51 * 20\% - 5 = 5.2$   
51 \* 50% - 5 - 5 = 16 11 26 3

1)

3

2)

3

3)

4)

5)

7.

8.

2