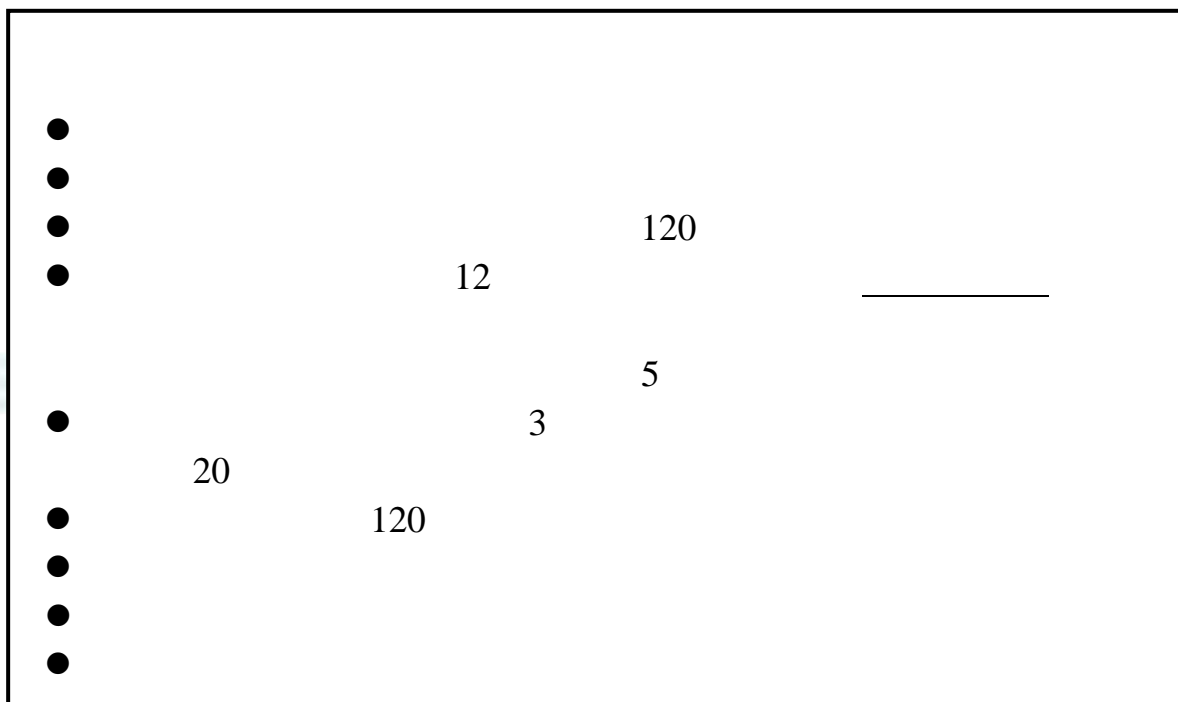




國際數學競賽

INTERNATIONAL MATHEMATICS COMPETITION
Changchun China, 27 July ~ 1 August 2015

120



Traditional Chinese Version

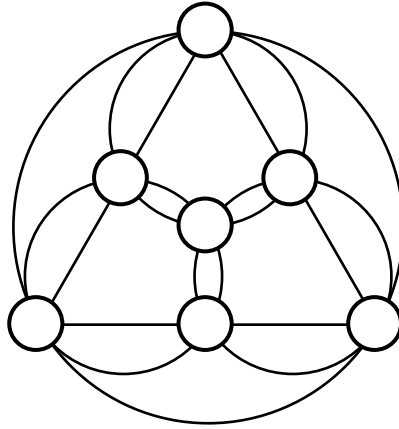
: _____ : _____ : _____ : _____

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		

5

1.

1 7
6



2.

$a - b$ a 1 a $a - b$

b

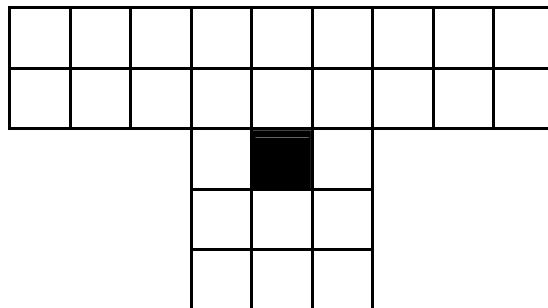
3.

2015 101

21

4.

26



5.

65 km/
13 km /

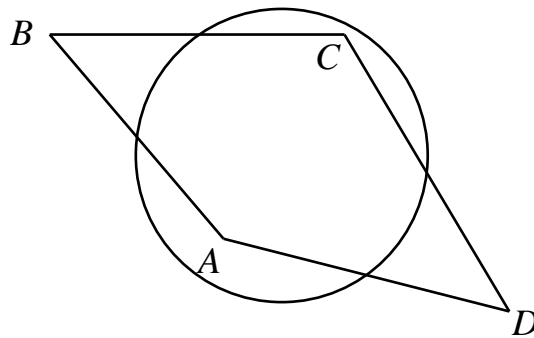
5 km /
100 km

6.

$$(x, y) \quad \frac{1}{x+1} + \frac{1}{y} + \frac{1}{(x+1)y} = \frac{1}{2015}$$

7.

	<i>ABCD</i>	<i>AB</i>	<i>BC</i>	<i>CD</i>	<i>DA</i>	
<i>AB</i> = 10 cm	<i>BC</i> = 11 cm	<i>CD</i> = 12 cm			<i>DA</i>	cm



_____ cm

8

$$\overline{ab} \quad \overline{cd} \quad \overline{ad} \quad (\overline{ab})^2 + (\overline{cd})^2 = (\overline{ad})^2$$

\overline{abcd}

9.

1×1

64

8×8

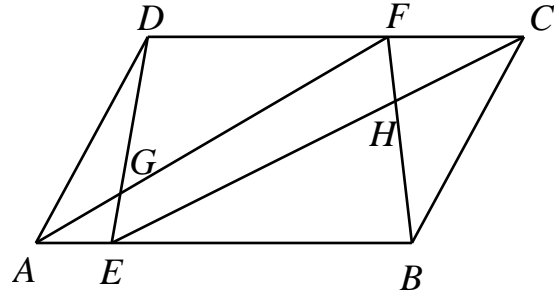
10.

$$\sqrt{7p^n + 9}$$

n

p

11. $ABCD$ E AB $\frac{AE}{EB} = \frac{1}{4}$ F
 DC AF DE G CE BF H $ABCD$
 1 cm^2 $\triangle BHC$ $\frac{1}{8} \text{ cm}^2$ $\triangle ADG$ cm^2



_____ cm^2

12.

1.

2. 1 2 3 4 5 6 7 8 9

3. $E N$ $ABCD$ $DC DA$ $AN : ND : DE = 2 : 3 : 4$
 $N BE$ BE $P BC$ $M AC$ MN O
 $BE S$ $\triangle OPS$ $ABCD$

