

8

-3 55 (235).

7
6-7
5-6
4
2-3
1
0

« + »

()

1

A 8.

A?
7

:

8

: $8 = 1 + 2 + 5 = 1 + 3 + 4.$

1, 3 4

A: A 4, A 10, 2. 4.

2

$a^2 + b^2 > 5c^2,$ c -

7

$a^2 \leq c^2$ b $c -$, $a \leq c.$
 $b^2 < (a + c)^2 \leq 4c^2.$
 $a^2 + b^2 < 5c^2.$

3

ABC DC, AC AC E. CD.
 D EC = 2AD.
 7

F - DE BC; K - EC. CD
 ECF, ED = DF, , DK || FC.

DK
 $AD = DK = EC/2.$

EDC

EC,

4

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{2014} > \frac{13}{7}$$

1, 2, 4, 8, 16, ...): (, ,

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{2014} =$$

$$= 1 + \left(\frac{1}{2}\right) + \left(\frac{1}{3} + \frac{1}{4}\right) + \left(\frac{1}{5} + \frac{1}{6} + \frac{1}{7} + \frac{1}{8}\right) + \dots + \left(\frac{1}{513} + \dots + \frac{1}{1024}\right) + \left(\frac{1}{1025} + \dots + \frac{1}{2014}\right)$$

, , , 1/2,

$$\left(\frac{1}{3} + \frac{1}{4}\right) + \left(\frac{1}{1025} + \dots + \frac{1}{2014}\right) > \frac{1}{2} + \frac{1}{12} + \frac{990}{2014} = \frac{1}{2} + \frac{100}{1200} + \frac{990}{2014} > \frac{1}{2} + \frac{1090}{2014} > \frac{1}{2} + \frac{1}{2}$$

11, .

5

– , – ,
 . , .
 . ?
7
 : – , – , – .
 , (2)
 , (1) – (3)
 – . : – , – , – .