

II ()

7

-4

:

7

6-7

5-6

4

« + »

2-3

1

0

1

:

-

-

?

7

2

$$1^2 + 2^2 + \dots + 99^2.$$

7

0

$$1^2 + 2^2 + \dots + 99^2 = (0^2 + 1^2 + \dots + 9^2) + (10^2 + 11^2 + \dots + 19^2) + \dots + (90^2 + 91^2 + \dots + 99^2)$$

10,

0.

3

10.

7

2/5.

$$2a/b = (a + 10)/(b + 10), \quad a \neq b$$

$2a(b + 10) = b(a + 10),$
 $2ab + 20a = ab + 10b,$
 $ab + 20a = 10b,$
 $b(10 - a) = 20a.$

B	1	2	4	5	10	20
A	-	-	-	2	-	5

$a = 5, b = 20$ $a = 2, b = 5.$
 $2(2/5) = 4/5 = 12/15.$

4

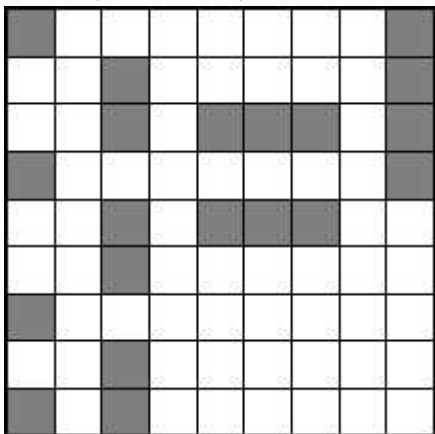
$\frac{1}{2} - \frac{1}{3} + \frac{1}{4} - \frac{1}{5} + \dots + \frac{1}{98} - \frac{1}{99} + \frac{1}{100} > \frac{1}{5}$

0

$(1/2) - (1/3) + (1/4) - (1/5) + \dots + (1/98) - (1/99) + (1/100) =$
 $= ((1/2) - (1/3) + (1/4) - (1/5)) + ((1/6) - (1/7)) + \dots + ((1/98) - (1/99)) + (1/100).$

5

" " 9x9.
 ? (, 1x4
 , 1x3 - , 1x2 - 1x1 - .)

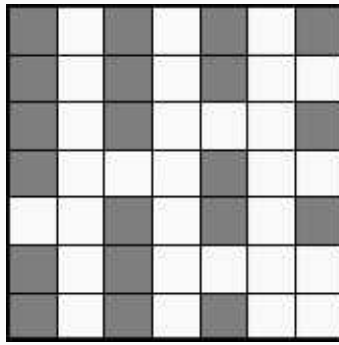


7

7x7

6×6

7×7



1.

2·5=10, 1×3, 8, 1×2=6, 1×4, 1×1=4;
 10+2·8+3·6+4·4=60, 6×6

$(6+1)^2=49 < 60$

2.

6×6, 10+2·8+3·6+4·4=60, 7×7,
 49 < 60 . (

3.

6×6 9 2×2. 10, 6×6 10
 . (, 1×1.)