

II ()

11

-4

7

6-7

5-6

4

« + »

2-3

1

0

1

4cos²36° - 2cos36° - 1 = 0.

7

sin72° = sin108°

sin(2·36°) = sin(3·36°)

2sin36°cos36° = sin36°(4cos²36° - 1)

2

(x²-4x+2)²⁰⁰⁹

7

: -1.

x = 1 (x²-4x+2)²⁰⁰⁹, (1-4+2)²⁰⁰⁹ = -1. x = 1.

1

3

2²⁰⁰⁹ 5²⁰⁰⁹ ?

7

: 2010.

2²⁰⁰⁹ m, 5²⁰⁰⁹ n

10^{m-1} < 2²⁰⁰⁹ < 10^m, 10ⁿ⁻¹ < 5²⁰⁰⁹ < 10ⁿ (: 10^{m+n-2} < 10²⁰⁰⁹ < 10^{m+n})

$$m+n = 2010, \quad 2009 = m+n-1, \quad 2010 = m+n-2, \quad m+n, \quad 2009 = m+n-1$$

$$1$$

4

$$, \quad , \quad 7$$

7

$$: \quad k, \quad - \quad , \quad 8$$

$$: \quad , \quad 3k/2, 7 = 3k/2 \quad k = 42/3 \quad 7$$

5

$$ab + a + b, \quad 1, 2, \dots, 200. \quad 199 \quad a \quad b \quad ?$$

$$: 201! - 1.$$

$$: \quad , \quad 1.$$

$$(\cdot + + + 1), \quad 1, \quad 201!.$$

$$1$$