

II ()

9

-4

7

6-7

5-6

4

2-3

1

0

« + »

1

6²

7

3²

1²

1²

3 + 3 - 1 = 5²

1²

1²

1²

5 + 1 = 6²

2

: a, b c.

a + b + c > 0, ab + bc + ca > 0, abc > 0.

a > 0, b > 0 c > 0.

7

abc > 0.

a > 0, b = -x < 0, c = -y < 0.

: a > x + y, a < xy(x + y)⁻¹.

xy > (x + y)².

0 > -xy + x² + y² = xy + (x + y)².

a, b, c -

x³ - ux² + vx - w, u, v,

w > 0 (u = a + b + c, v = ab + bc + ca, w = abc).

x³ = 0,

3

12,

18.

7

$$: \frac{28}{3}$$

$AP \perp BC$ in $\triangle ABC$.

$$AP = \sqrt{AB^2 - BP^2} = \sqrt{18^2 - 6^2} = 12\sqrt{2}$$

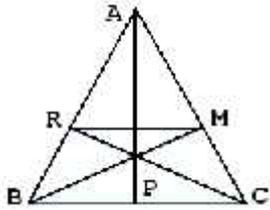
$$2S_{\triangle ABC} = BC \cdot AP = AC \cdot BM.$$

$$BM = \frac{BC \cdot AP}{AC} = \frac{12 \cdot 12\sqrt{2}}{18} = 8\sqrt{2}$$

$$AM = \sqrt{AB^2 - BM^2} = \sqrt{324 - 128} = 14$$

$$\frac{RM}{BC} = \frac{AM}{AC}$$

$$: RM = \frac{BC \cdot AM}{AC} = \frac{12 \cdot 14}{18} = \frac{28}{3}$$



$$\frac{4}{20}$$

$$70.$$

7

$$a_1, a_2, \dots, a_{20}$$

$$a_1 < a_2 < \dots < a_{20}.$$

19

$$d_1 = a_2 - a_1, d_2 = a_3 - a_2, \dots, d_{19} = a_{20} - a_{19}$$

1,

2, . . .

$$(1+1+1)+(2+2+2)+(3+3+3)+(4+4+4)+(5+5+5)+(6+6+6)+7=70. \quad d_1+d_2+\dots+d_{19} = a_{20}-a_1$$

5

$$8*8,$$

$$1*1.$$

64

(

).

64

$$: 2^{16}$$

7

4

(

).

$$4^8 = 2^{16}.$$