

9

1. $y + \frac{|y|}{2} = \frac{x}{2} + |x|.$

:

1) $\begin{cases} x \geq 0, y \geq 0, \\ y + \frac{y}{2} = \frac{x}{2} + x \end{cases} \quad \begin{cases} x \geq 0, y \geq 0, \\ 2y + y = x + 2x, \end{cases} \quad \begin{cases} x \geq 0, y \geq 0, \\ x = y. \end{cases}$

2) $\begin{cases} x > 0, y < 0 \\ y - \frac{y}{2} = \frac{x}{2} + x \end{cases} \quad \begin{cases} x > 0, y < 0, \\ y = 3x. \end{cases}$

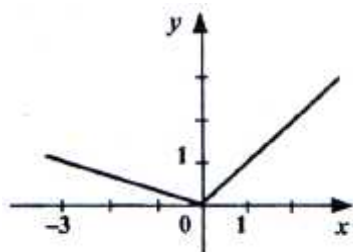
2)

3) $\begin{cases} x < 0, y < 0, \\ y - \frac{y}{2} = \frac{x}{2} - x, \end{cases} \quad \begin{cases} x < 0, y < 0, \\ 2y - y = x - 2x, \end{cases} \quad \begin{cases} x < 0, y < 0, \\ y = -x. \end{cases}$

3)

4) $\begin{cases} x < 0, y > 0, \\ y + \frac{y}{2} = \frac{x}{2} - x, \end{cases} \quad \begin{cases} x < 0, y > 0, \\ 2y + y = x - 2x, \end{cases} \quad \begin{cases} x < 0, y > 0, \\ y = -\frac{1}{3}x. \end{cases}$

:



7 -

3 -

2.

(: R : S = πR^2)

1, 2 - $2^2 - 6 + 1 = 0.$

1, 2,

$$\pi R^2 = \pi \left(\frac{\sqrt{x_1^2 + x_2^2}}{2} \right)^2 = \frac{\pi}{4} (x_1^2 + x_2^2) = \frac{\pi}{4} ((x_1^2 + x_2^2)^2 - 2x_1x_2) = \frac{\pi}{4} (3^2 - 1) = 2\pi.$$

: 2π.

$$\frac{7}{3} -$$

3. , , -

cos ∠B.

$$\cos \angle B = \frac{BA}{B} \quad (\Delta \text{ ' '})$$

$$\cos \angle B = \frac{BC}{B} \quad (\Delta C C').$$

Δ ' ' Δ . B ,

$$\frac{BA}{B} = \frac{BC}{B} = \cos \angle B,$$

cos ∠B.

$$\frac{7}{4} -$$

$$1 -$$

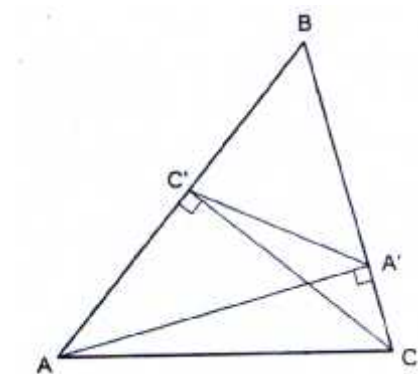
4. 10 , 15 ? 14 .

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11 -

16

10



$$11 \cdot 16 \cdot 15 = 2640$$

: 2640

$$\begin{array}{r} 7 \\ 5 \\ 2 \end{array} \begin{array}{l} - \\ - \\ - \end{array}$$

$$5. \quad 400$$

10

$$\begin{array}{r} 16 \quad 40 \\ 43 \quad 20 \end{array} \quad (\quad)$$

100 /

$$\begin{cases} \frac{1}{y} = \frac{1}{x} + 16\frac{2}{3} \\ \frac{8}{x-y} = \frac{1}{x} - 43\frac{1}{3} \end{cases} \Rightarrow \begin{cases} y = \frac{1}{\frac{1}{x} + \frac{5}{3}} \\ x - y = \frac{8}{\frac{1}{x} - \frac{1}{3}} \end{cases} \Rightarrow x = \frac{6}{\frac{6}{x} + 1} + \frac{2}{\frac{3}{x} - 1} =$$

$$\frac{6}{6+x} + \frac{2}{3-x} \Rightarrow (600+x) \cdot (3000-13x) = 600(3000-13x) +$$

$$240(600+x) \Rightarrow 13x^2 - 2760x + 240 \cdot 600 = 0 \Rightarrow x = \frac{1 \pm 1}{1} > 100 \Rightarrow$$

$$x = 120, y = \frac{600}{\frac{600}{120} + 1} = 100,$$

$$\left\lfloor \frac{120-100}{400} \cdot \frac{10000}{120} \right\rfloor = \left\lfloor \frac{50}{12} \right\rfloor = 4.$$

: 4.

$$\begin{array}{r} 7 \\ 5 \end{array} \begin{array}{l} - \\ - \end{array}$$

3
1

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