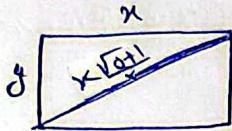


$$\frac{S_{\text{مربع}}}{S_{\text{مربع}}} = \frac{(d+x)r}{d \times r} = \frac{r\sqrt{d+1}}{d} = \frac{r}{d} \sqrt{d+1} = \frac{r}{d} (\sqrt{d+1})$$

$$\hookrightarrow d+x = r \left(\frac{\sqrt{d+1}}{r} \right) = \sqrt{d+1}$$



$$\Rightarrow x^2 \left(\frac{r+\sqrt{d}}{r} \right) = x^2 + y^2 \Rightarrow \frac{r+\sqrt{d}}{r} = 1 + \frac{y^2}{x^2}$$

$$\Rightarrow \frac{1+\sqrt{d}}{r} = \frac{y^2}{x^2} \Rightarrow \frac{x^2}{y^2} = \frac{r}{1+\sqrt{d}}$$

$$\sqrt{ra+fa} = r - ra \Rightarrow ra + fa = r^2 - 2ra + a^2$$

$$\rightarrow ra^2 - 4a + f = 0 \rightarrow a^2 - 4a + 1 = 0 \rightarrow (a-1)(a-1) = 0 \rightarrow a = 1$$

$$\frac{a+1}{a} = \frac{r+1}{r} = \frac{r+1}{r} = \frac{9}{r} < f/d$$

$$\frac{\sqrt{n+1}(r-\sqrt{n-1}) - \sqrt{n+1}(r+\sqrt{n-1})}{(r+\sqrt{n-1})(r-\sqrt{n-1})} = \frac{n-1}{\sqrt{n-1}} \rightarrow \frac{-\sqrt{n^2-1} - \sqrt{n^2-1}}{r-n+1} = \frac{\sqrt{n-1}\sqrt{n-1}}{\sqrt{n-1}}$$

$$\rightarrow \frac{-2\sqrt{n-1}\sqrt{n+1}}{1-n} = \frac{\sqrt{n-1}\sqrt{n-1}}{\sqrt{n-1}} \rightarrow 2\sqrt{n+1} = n-1 \rightarrow n = 1$$

$$\frac{1}{r+\sqrt{r-n}} - \frac{1}{r-\sqrt{r-n}} = \frac{r-n}{d\sqrt{r-n}} \rightarrow \frac{r-\sqrt{r-n} - r + \sqrt{r-n}}{r^2 - r + n} = \frac{r-n}{d\sqrt{r-n}}$$

$$\Rightarrow \frac{-2\sqrt{r-n}}{r+n} = \frac{r-n}{d\sqrt{r-n}} \rightarrow -1 \cdot (r-n) = (r-n)(r+n)$$

$$\rightarrow -1 = r+n \rightarrow n = -1$$

$$\frac{1}{x^2} + \frac{1}{x^2 - 2x + 1} = \frac{14}{9} \Rightarrow \frac{x^2 - 2x + 1 + x^2}{x^4 - 2x^3 + x^2} = \frac{14}{9} \Rightarrow \frac{2x^2 - 2x + 1}{x^4 - 2x^3 + x^2} = \frac{14}{9}$$

$$\rightarrow 14x^4 - 32x^3 + \dots \Rightarrow \text{مطلق قفیه ویت برای بدست آوردن مجموع ریشه} \\ \text{چون درجه کمی ندارد اکتفا نمی‌نمایند} \\ \downarrow -\frac{b}{a} = \frac{32}{14} = 2$$

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$$\textcircled{1} \text{ زیر بار یکسان } 710 \Rightarrow -(x^2 - 9x + 8) \gg 0 \Rightarrow -(x-4)(x-2) \gg 0$$

$$\textcircled{2} \text{ زیر بار ناهمسان } 710 \Rightarrow -x^2(x-4) + 20(x-4) \gg 0 \rightarrow (x-4)(-x^2+20) \gg 0 \Rightarrow (x-4)(-x+20)(x+20) \gg 0$$

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$$\Rightarrow \textcircled{1} \frac{2}{-1+1-}$$

$$\textcircled{2} \frac{-20}{+1-1+1-} \Rightarrow \textcircled{1} \text{ و } \textcircled{2} \Rightarrow \frac{4}{9} \text{ و } 4 \text{ در محاسبه صدق می‌کنند و درست است } g=4$$

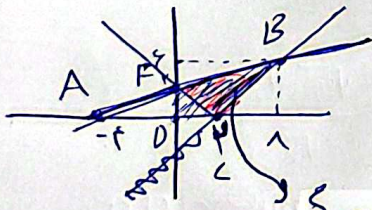
$$|x+2| + |x-1| = \frac{17-x}{3}$$

$$\frac{-2}{-1-2x+1} = \frac{1}{3} \quad \frac{1}{2x+1} = \frac{17-x}{3}$$

$$x = -5 \checkmark \quad x = 1 \checkmark \quad \sqrt{x} \leq 4 \quad x \leq 16 \checkmark \\ g = \sqrt{1} \quad g = 4$$

$$\Rightarrow \text{فاصله } (-4, 7) \text{ و } (2, 5) = \sqrt{36+4} = \sqrt{40} = 2\sqrt{10}$$

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$$\sqrt{(x-2)^2} = x-2$$

$$\frac{1}{3}x+2 = x-2 \rightarrow x=1 \quad g=6$$

$$S_{\text{شماره}} = S_{\triangle ABC} - S_{\triangle AFC} = \frac{5 \times 7}{2} - \frac{4 \times 5}{2} = 11.5 = 12.5$$

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مردم: x

فرهنگ: $x+9$

پایه: 2

$$\Rightarrow \frac{1}{x} + \frac{1}{x+9} = \frac{1}{2} \rightarrow 2 \cdot (x+9) + 2 \cdot x = x^2 + 9x$$

$$\Rightarrow 2 \cdot x + 18 + 2 \cdot x = x^2 + 9x \Rightarrow x^2 - 31x - 18 = 0 \\ (x-4)(x+2) = 0 \rightarrow x = 34$$

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