

نام و نام خانوادگی (نام و نام خانوادگی) پاسخنامه تشریحی تکلیف شماره ١٠٠ کلاس فصل ١٣

$$\frac{(11 + 31 + 51 + \dots + 1701)(21 + 41 + 61 + \dots + 271)}{2501} = \frac{\text{مجموع اعداد زوج}}{\text{مجموع اعداد فرد}} = 1$$

$$\sqrt[4]{(1+\sqrt{2})^{-1}} \sqrt{1+\sqrt{2}} \rightarrow \sqrt[4]{1+2\sqrt{2}} = \sqrt[4]{\frac{1}{(1+\sqrt{2})^{-1}} \times (1+\sqrt{2})} = \sqrt[4]{1+\sqrt{2}}$$

$$\left(\frac{\sqrt{2} + \sqrt{5}}{\sqrt{1} + 2} \right) \left(\sqrt{3-\sqrt{5}} - \sqrt{3+\sqrt{5}} \right) = \frac{3-\sqrt{5} + \sqrt{5}-\sqrt{15} - 3-\sqrt{5} - \sqrt{15}-\sqrt{5}}{1+2\sqrt{2}} = \frac{-4\sqrt{5}-2\sqrt{15}}{1+2\sqrt{2}} = -2(\sqrt{5} + \sqrt{15})$$

$$\frac{\sqrt{2} + 3\sqrt{3} - 2(\sqrt{9} - 1)^{-1}}{\omega - \sqrt{2}} = \frac{(\sqrt{2} + 3\sqrt{3})(\omega + \sqrt{2}) - 2(\sqrt{2} + 1)}{(\omega - \sqrt{2})(\omega + \sqrt{2})} = \frac{1\sqrt{2} + 3\sqrt{6} + 3\sqrt{6} + 9 - 2\sqrt{2} - 2}{\omega^2 - 2} = \frac{6\sqrt{6} + 7 - \sqrt{2}}{\omega^2 - 2}$$

$$\frac{3\sqrt{3}-1}{\sqrt{2}+\sqrt{3}} + (2-\sqrt{2})^{-1} = \frac{3\sqrt{3}-1}{\sqrt{2}+\sqrt{3}} \times \frac{\sqrt{2}-\sqrt{3}}{\sqrt{2}-\sqrt{3}} = \frac{3\sqrt{6}-3\sqrt{3}-\sqrt{2}+\sqrt{3}}{2-3} = \frac{3\sqrt{6}-2\sqrt{3}-\sqrt{2}}{-1} = 2\sqrt{3}+1$$

$$A = \frac{\sqrt{1+\sqrt{3}} + \sqrt{\sqrt{3}-1}}{\sqrt{\sqrt{3}-1}} - 2 = \frac{A'}{\sqrt{3}-\sqrt{2}} = \frac{2\sqrt{2}+2\sqrt{3}}{\sqrt{2}-2} \times \frac{\sqrt{2}+\sqrt{2}}{\sqrt{2}+\sqrt{2}} = 2(\sqrt{2}+\sqrt{3})$$

$$\frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} \times \frac{1}{11} = \frac{1}{11^{10}}$$

$$S_n = a \frac{r^n - 1}{r - 1} = 1 \times \frac{r^n - 1}{r - 1} = \frac{r^n - 1}{r - 1} = \frac{r^n - 1}{r - 1} = \frac{r^n - 1}{r - 1}$$

$$c^{a-2} (1 + c + c^2 + c^3 + c^4 + c^5) \rightarrow c^{a-2} \times c^6 = c^{a+4}$$

$$\frac{\mu_2}{\mu_2 - 2} = \omega^2$$

$$((a+b)^r - rab)((a+b)^r + rab)$$

$$((a+b)^r)((a-b)^r) = ((a+b)(a-b))^r = (a^2 - b^2)^r$$

$$(\sqrt{4} + 1 - \sqrt{4} - 1)^r = (\sqrt{4} + 1 + \sqrt{4} - 1\sqrt{4} - 1)^r = (2\sqrt{4} - 2\sqrt{4})^r$$

$$4\left(\frac{4+1}{1} - 2\sqrt{4}\right) = 14(1 - \sqrt{4})$$

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$$\left((a + \frac{1}{a}) + \sqrt{a}\right)\left((a + \frac{1}{a}) - \sqrt{a}\right)^r = r^4$$

$$(a + \frac{1}{a})^r - r = (a^r + \frac{1}{a^r} + \cancel{r\sqrt{a}})^r = a^r + \frac{1}{a^r} + r$$

$$1 - 2\sqrt{4} + \frac{1}{1 - 2\sqrt{4}} + r = 9 - 2\sqrt{4} + \frac{1 + 2\sqrt{4}}{9 - 41} = 19$$

$$r^2 = r^4$$

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$$\omega \sqrt{\frac{r^2}{r} \propto \frac{r}{r}} \propto r^{\frac{2}{r}} = \omega \sqrt{\frac{1}{r}} \propto r^{\frac{1}{r}} = r^{\frac{1}{10}} \propto \frac{r}{r^{\frac{1}{10}}} = r^{\frac{9}{10}} = \omega$$

$$(rA)^{\frac{1}{r}} = (r^r)^{\frac{1}{r}} = r^{-1} = \left(\frac{1}{r}\right)$$

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$$\sqrt[r]{a} = rV a^{\frac{1}{V}}$$

$$a^{\frac{1}{V}} = a^{-\frac{1}{V}} = a^{-r} = rV$$

$$\frac{1}{a^{\frac{1}{V}}} = rV \quad \frac{1}{a} = \sqrt[r]{rV} \cdot \sqrt[r]{r}$$

$$\frac{r\sqrt{r} - r}{1 + \sqrt{r}} \times \frac{1 - \sqrt{r}}{1 - \sqrt{r}} = \frac{r\sqrt{r} - 9 - r + r\sqrt{r}}{-r}$$

$$\frac{9\sqrt{r} - 14}{-r} = -3\sqrt{r} + 9$$

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$$(\sqrt{x+a} - \sqrt{x-\varepsilon} - r)^r$$

$$(\sqrt{x+a} + \sqrt{x-\varepsilon})^r =$$

$$x+a+x-\varepsilon - \sqrt{(x+a)(x-\varepsilon)} = \varepsilon$$

$$x+a+x-\varepsilon + r\sqrt{(x+a)(x-\varepsilon)}$$

$$rx+a-\varepsilon - \sqrt{(x+a)(x-\varepsilon)} = \varepsilon$$

$$\sqrt{x+a} - \varepsilon + r\sqrt{x}$$

$$rx+a = r\sqrt{(x+a)(x-\varepsilon)} + 1$$

$$rx+a-\varepsilon$$

$$rx+ra - (1-r) =$$

$$r(x+a-r)$$

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