

FZXiaoBiaoSongB05S

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$$\begin{aligned} & \vdots \\ \text{1. } & \sqrt{7 + \sqrt{48}} \\ \text{3. } & \sqrt{11 + 2\sqrt{30}} \\ \text{5. } & \sqrt{43 - 30\sqrt{2}} \end{aligned}$$

$$\begin{aligned} \text{2. } & \sqrt{23 - 4\sqrt{33}} \\ \text{4. } & \sqrt{17 + 12\sqrt{2}} \\ \text{6. } & \sqrt{6 + 2(\sqrt{2} + \sqrt{3} + \sqrt{6})} \end{aligned}$$

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$$\begin{aligned} \text{1. } & \sqrt{6 + 2(\sqrt{3} - \sqrt{6} - \sqrt{2})} \\ \text{3. } & \sqrt{p + q + r - 2(\sqrt{pq} + \sqrt{qr} - \sqrt{qr})} \quad (p, q, r > 0) \\ \text{4. } & \sqrt{(17 - 12\sqrt{2}) + (22 - 12\sqrt{2}) + (113 + 72\sqrt{2})} \end{aligned}$$

$$\text{2. } \sqrt{2 + \sqrt{9 + 4\sqrt{2}}}$$

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1. :

$$\sqrt{(x+2)(x-1) - (x-3)(x+3) - 5} \div \sqrt{\frac{x+2}{x}}.$$

2. $x = 3 + \sqrt{2}, y = 3 - \sqrt{2},$

$$\frac{x^4 - 1}{x - 1} + \frac{y^4 - 1}{y - 1}.$$

3. $x^2 - \sqrt{10}x + 2 = 0,$

$$x^4 + \frac{16}{x^4}.$$

4. :

$$(1 + \sqrt{2})^6 + (1 - \sqrt{2})^6 + (1 + \sqrt{3})^3 + (1 - \sqrt{3})^3.$$

5. :

$$\left(\frac{\sqrt{5}+1}{2}\right)^{10} + \left(\frac{\sqrt{5}-1}{2}\right)^{10} - \left(\frac{\sqrt{5}+1}{2}\right)^6 - \left(\frac{\sqrt{5}-1}{2}\right)^6 - \frac{(\sqrt{5}+\sqrt{2})^2 + (\sqrt{5}-\sqrt{2})^2}{(2+\sqrt{3})^2 + (2-\sqrt{3})^2}.$$