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NO 3 級 182  
2 級 111

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ex. 6  $a, b \in \mathbb{N}$

1) 已知  $\sqrt{3+2\sqrt{2}} = \sqrt{a+b} + \sqrt{ab}$ , 求  $a, b$

$$3+2\sqrt{2} = a+b+2\sqrt{ab}$$

$$\Rightarrow \begin{cases} a+b=3 \\ ab=2 \end{cases}$$

$$\Rightarrow \begin{cases} a=2 \\ b=1 \end{cases}$$

2) 解  $(1+\sqrt{2})x^2 - (3+\sqrt{2})x + \sqrt{2} = 0$

$$(1+\sqrt{2})x-1)(x-\sqrt{2})=0$$

$$\Rightarrow x = \sqrt{2} \text{ or } \frac{1}{1+\sqrt{2}}$$