

3.30
1

$$(2+i)x^2 - (5-i)x + 2-2i = 0$$

$$x_{1,2} = \frac{5-i \pm \sqrt{25-10i - 4(4-4i+2i+2)}}{4+2i} =$$

$$(*) \quad \frac{5-i \pm \sqrt{-2i}}{4+2i}$$

$$a+bi = \sqrt{-2i} \rightarrow a^2 - b^2 = 0 \rightarrow ab = -1 \rightarrow a = -\frac{1}{b}$$

$$\rightarrow \frac{1}{b^2} - b^2 = 0 \rightarrow |b| = \pm 1$$

$-1+i$ $1-i$ $\sqrt{2i}$ $\sqrt{-2i}$ ± 1
הסתברות $\sqrt{2i}$ $\sqrt{-2i}$ ± 1

$$\frac{(5-i) \pm (1-i)}{4+2i} = \frac{6-2i}{4+2i} \cdot \frac{4-2i}{4-2i} = \frac{20-20i}{20} = 1-i$$

$$\frac{4+i}{4+2i} \cdot \frac{4-2i}{4-2i} = \frac{16-8i}{20} = \frac{4}{5} - \frac{2}{5}i$$