

$$a) \sqrt{5-12i} = ?$$

$$z := 5-12i$$

$$\text{WTF?} := 0$$

$$|z| = \sqrt{5^2+12^2} = 13$$

$$\sqrt{5-12i} =$$

$$\sqrt{5-2.6i} =$$

$$\sqrt{3^2-2.6i-2^2} =$$

$$= \sqrt{(3-2i)^2}$$

$$z_1 = 3-2i$$

$$z_2 = (3-2i)(\cos\pi + i\sin\pi) \\ = (3-2i)(-1+0) = -3+2i$$

$$b) \sqrt{-11+60i} = \sqrt{-11+2.30i} =$$

$$= \sqrt{-11+2.2.3.5i} =$$

$$= \sqrt{25+2.5.6i-36} =$$

$$= \sqrt{(5+6i)^2}$$

$$z_1 = 5+6i$$

$$z_2 = (5+6i)(\cos\pi + i\sin\pi) = \\ = (5+6i)(-1+0) = -5-6i$$