

$$I \quad \frac{3+5i}{2i} \cdot \frac{2i}{2i} = \frac{6i-10}{-4} = -\frac{3}{2}i + \frac{5}{2} \quad \text{+}\pi \text{ } \otimes$$

$$II \quad \frac{5-2i}{4i+1} \cdot \frac{4i-1}{4i-1} = \frac{20i-5+8+2i}{-16-1} = \frac{3+22i}{-17}$$

$$= -\frac{3}{17} - \frac{22}{17}i$$

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$$(2i-5) \cdot [(3i+4) - 2 \cdot (i-4)]$$

$$(2i-5) \cdot (3i+4-2i+8)$$

$$(2i-5)(i+12)$$

$$2i^2 + 24i - 5i - 60 = -62 + 19i$$

$$\alpha = \arctan -\frac{19}{62} + \pi$$



$$3) \quad \frac{4i^8 \cdot (4i - 2i^{11}) \cdot [(i^3 + 7i) \cdot (4i + 1)]}{4 \cdot (4i + 2i) \cdot [(-i + 2i) \cdot (4i + 1)]}$$

$$24i \cdot (-4 + i)$$

$$z = -24 - 96i \quad \alpha = \arccos \left(\cos \left(\frac{96}{24} \right) \right) + \pi$$

$$5) \quad \frac{3 - 2i}{i - 1} \cdot \frac{i + 1}{i + 1} = \frac{3i + 3 + 2 - 2i}{-1 - 1} = \frac{5 + i}{-2}$$

$$\frac{3i + 4}{1 - 2i} \cdot \frac{1 + 2i}{1 + 2i} = \frac{3i - 6 + 4 + 8i}{1 + 4} = \frac{-2 + 11i}{5}$$

$$\frac{-25 - 5i - (-4 + 22i) - (3i + 19)}{10}$$

$$\frac{-40 - 30i}{10} = -4 - 3i \quad \alpha = \arccos \left(\cos \left(\frac{3}{4} \right) \right) + \pi$$

$$r = \sqrt{16 + 9} = 5$$

$$z^2 - (6i - 4) \cdot z = 12i + 9 \quad | -12i - 9$$

$$z^2 - \underbrace{(6i - 4)}_p \cdot z - \underbrace{12i - 9}_q = 0$$

$$z_{1/2} = \frac{6i - 4}{2} \pm \sqrt{\left(\frac{6i - 4}{2}\right)^2 - (-12i - 9)}$$

$$= 3i - 2 \pm \sqrt{(3i - 2)^2 + 12i + 9}$$

$$= 3i - 2 \pm \sqrt{\underbrace{-9}_{-9} - \underbrace{12i}_{12i} + \underbrace{4}_{4} + \underbrace{12i}_{12i} + \underbrace{9}_{9}}$$

$$z_1 = 3i - 2 + 2 \\ = 3i$$

$$z_2 = 3i - 2 - 2 \\ = 3i - 4$$

$$A(x; y; z) = \underline{\neg(x \wedge y)} \vee \underline{(z \rightarrow \neg y)}$$

X	W	W	W	W	F	F	F	F
Y	W	W	F	F	W	W	F	F
Z	W	F	W	F	W	F	W	F
$x \wedge y$	W	W	F	F	F	F	F	F
$\neg(x \wedge y)$	F	F	W	W	W	W	W	W
$\neg y$	F	F	W	W	F	F	W	W
$z \rightarrow \neg y$	F	W	W	W	F	W	W	W
$(I) \vee (II)$	F	W	W	W	W	W	W	W

$$E[A] = \text{Bool}^3 \setminus \{(W, W, W)\}$$