

$$\begin{aligned}
 559 \text{ Nr. 1)} & (2i-5) \cdot [(3i+4) - 2(i-4)] \xrightarrow{+(-2)(i-4)} -2(i-4) + (3i+4) \\
 & (2i-5) \cdot (3i+4-2i+8) \\
 & (2i-5) \cdot (i+12) = 2i^2 + 24i - 5i - 60 \\
 & -62 + 19i \Rightarrow \text{Argument } +\pi
 \end{aligned}$$

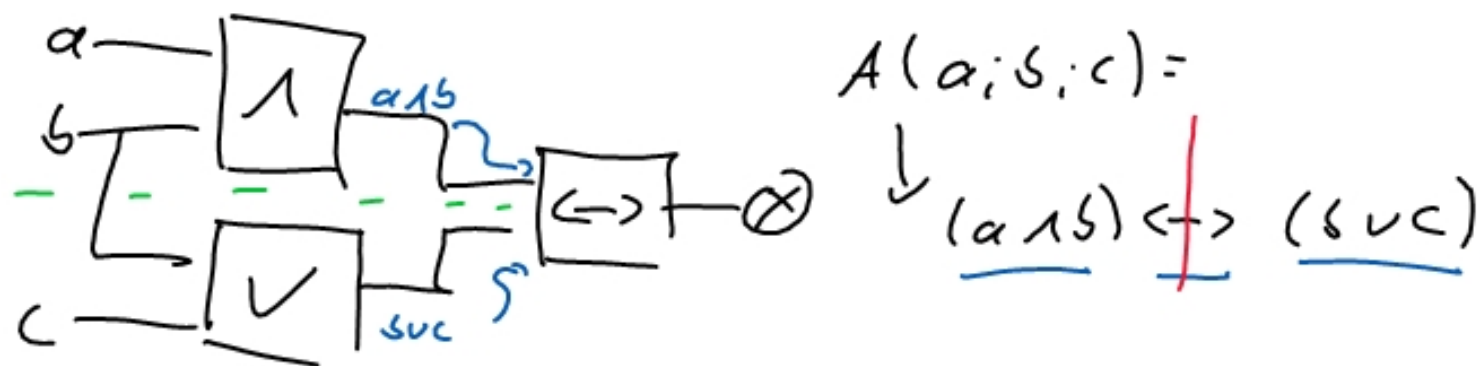
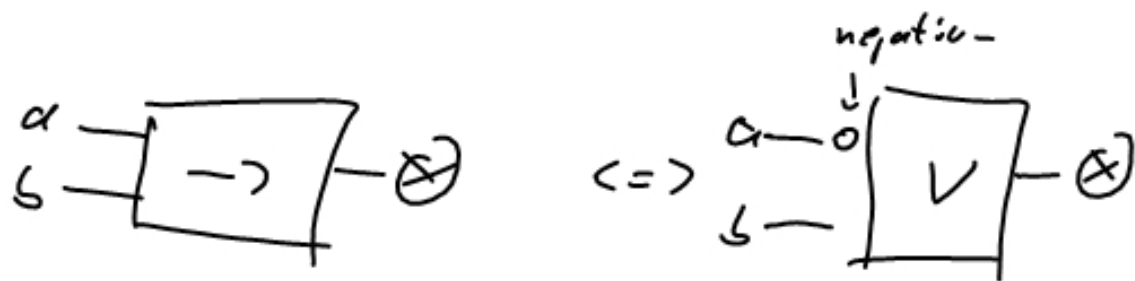
$$\begin{aligned}
 2) & 4 \cdot (i-3)(i+3) - (i-2)(5+i) \xrightarrow{\frac{-5i-25 - (-4+22i) - (3i+19)}{10}} \\
 & 4 \cdot (i^2-9) - (5i+i^2-10-2i) \\
 & -40 - (3i-11) = -29-3i \quad +\pi
 \end{aligned}$$

$$5) \quad \frac{3-2i}{1-i} \cdot \frac{i+1}{i+1} = \frac{3i+3-2i^2-2i}{i^2-1} = \frac{i+5}{-2} = \frac{-5i-25}{10}$$

$$\frac{3i+4}{1-2i} \cdot \frac{1+2i}{1+2i} = \frac{3i+6i^2+4+8i}{1-4i^2} = \frac{-2+11i}{5} = \frac{-4+22i}{10}$$

$$\Rightarrow \frac{-5i-25}{10} - \frac{-4+22i}{10} - \frac{3i+19}{10} \xrightarrow{*} = \frac{-30i-40}{10} = -4-3i$$

$$r = \sqrt{(-4)^2 + (-3)^2} = \sqrt{25} = 5 \quad \alpha = \arctan \frac{3}{4} + \pi$$



$$A(a; b; c) =$$

$$\downarrow \underline{(a \wedge b)} \rightarrow \underline{(a \vee b \vee c)}$$

$$E[A(a; b; c)] =$$

$\{ (www); (wwF); (wFF); (FFw); (FFF) \}$

$a$	w	w	w	F	F	F	F
$b$	w	w	F	w	w	F	F
$c$	w	F	w	F	F	w	F
$a \wedge b$	w	w	F	F	F	F	F
$a \vee b \vee c$	w	w	w	F	w	w	F
$(a \wedge b) \rightarrow (a \vee b \vee c)$	w	w	F	w	F	F	w

$$\neg a \wedge b \xrightarrow{\text{!}} a \vee \neg c = A(a; s; c)$$

	a	s	c						
	w	w	w	w	$\bar{w}$	F	F	F	
	w	w	$\bar{w}$	$\bar{w}$	w	w	$\bar{w}$	$\bar{w}$	
	w	$\bar{w}$	w	$\bar{w}$	w	F	w	F	
(i)	$\neg a$	F	F	F	$\bar{w}$	w	w	w	
	$\neg a \wedge b$	F	F	$\bar{w}$	$\bar{w}$	w	$\bar{w}$	F	
	-	-	-	-	-	-	-	-	
(ii)	$\neg c$	$\bar{w}$	w	$\bar{w}$	w	$\bar{w}$	w	w	
	$a \vee \neg c$	w	w	w	w	$\bar{w}$	w	w	
	-	-	-	-	-	-	-	-	
	(i) $\rightarrow$ (ii)	w	w	w	w	$\bar{w}$	w	w	

$$E[A(a; s; c)] = \text{Bool}^3 \setminus \{(\bar{w} w w)\}$$

$$\text{Bool} \times \text{Bool} \times \text{Bool}$$

