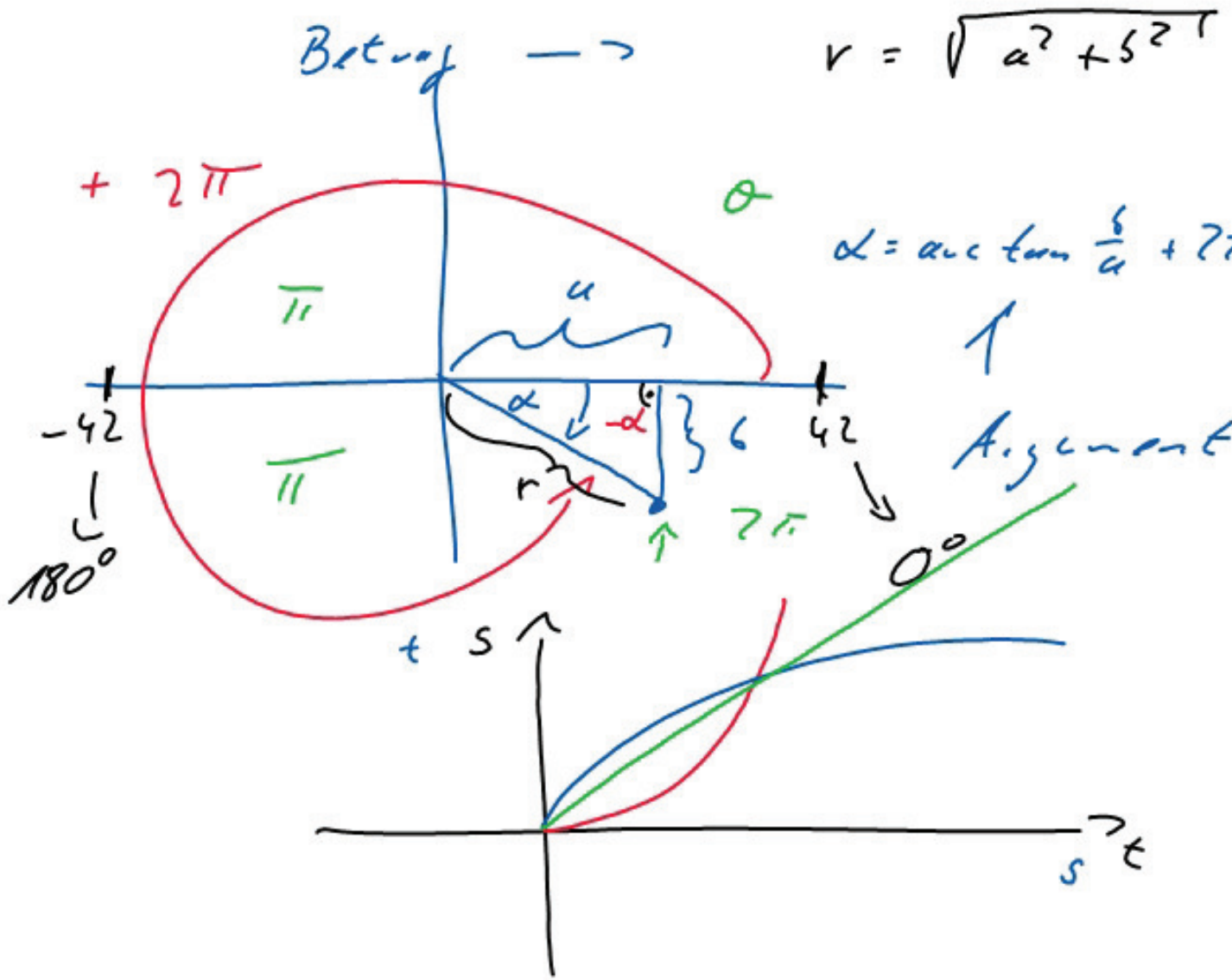
Betrag
r = √(a² + b²)
+ 2π
α
α = arc tan b/a + 2π
π
u
-42
180°
α
-α
b
42
r
2π
Argument
0°
t s
s t

3) $\{\otimes; \nabla; \infty; \pi\} = A \Rightarrow 2^n = 16$

$P(A) =$

$\{\}; \{\otimes\}; \{\nabla\}, \{\infty\}, \{\pi\}$

$\{\otimes;\nabla\}; \{\otimes;\infty\}; \{\otimes;\pi\}, \{\nabla;\infty\}; \{\nabla;\pi\}; \{\infty;\pi\}$

$\{\otimes;\nabla;\infty\}; \{\otimes;\nabla;\pi\}; \{\otimes;\infty;\pi\}; \{\nabla;\infty;\pi\}$

$\{\otimes;\nabla;\infty;\pi\}$

5) 5) $C \times A$

A

ε

Γ

λ

x

y

C

4) $\{\{\}; a; \{\lambda; \}\}; 5, \{5\}\}$

a) $\{a\}$, $[\{\lambda;3\}]$, $\{\{\}\}$, $\{5\}$, $\{\{5\}\}$ $\wedge \Rightarrow \{\}$ ✓

$\cup$

$\to a$

$\to \{\lambda;\}$

$\to \{\}$

$\to 5$

$\to \{5\}$

1) $\left[x^3 \left(x^6 \left(x^2 \right)^{1/3} \right)^{1/4} \right]^{1/2} = x^{3/2} \; x^{3/4} \; x^{1/12} = x^{\frac{18+9+1}{12}}$

$= x^{28/12} = x^{7/3} = \sqrt[3]{x^7}$

2) $\dfrac{(2^3 u^7 v^{-7} w)^4}{(3^4 r^{-3} s^{-7} t^3)^2} \cdot \dfrac{(2^4 u^3 v^{-4} w^{-7})^{-3}}{(3^4 r^{-3} s^4 t^3)^{-2}}$

$\dfrac{2^{12} u^8 v^{-8} w^4 \; 3^{-12} u^{-9} v^{12} w^6}{3^8 r^{-6} s^{-4} t^6 \; 3^{-8} r^6 s^{-8} t^{-6}}$

$\dfrac{u^{-1} v^4 w^{10}}{s^{-12}} = \dfrac{v^4 w^{10} s^{12}}{u}$

3) $\dfrac{a^{\frac{2-k}{k}}}{a^{\frac{3k+4}{k}}} \cdot \dfrac{a^{-\frac{2}{k}}}{a^{-4k-12}} = a^{\frac{2-k-(3k+4)+(-2)-(-4k-12)}{k}}$

$= a^{8/k} = \sqrt[k]{a^8}$

$\left(\left(\sqrt[k]{a^2}\right)^{k+3}\right)^{-2}$ $\quad a$ $\quad \left(\left((a^2)^{1/k}\right)^{k+3}\right)^{-2}$

a) $\sqrt{x^3} = 125$ $\qquad x^{3/2} = 125$ $\qquad \uparrow^{2/3}$

$x = 125^{2/3} = \sqrt[3]{125^2} = 5^2 = 25$

5) $\left(\sqrt[3]{x^5}\right)^2 = 1024$ $\qquad x^{10/3} = 1024$ $\qquad \uparrow^{3/10}$

$x = 1024^{3/10} = \sqrt[10]{1024^3} = 2^3 = 8$