3)

$$\left\{\begin{array}{l} \{\,\} \\ \{\otimes\},\ \{\nabla\};\ \{\infty\};\ \{\pi\} \\ \{\otimes;\nabla\};\ \{\otimes;\infty\};\ \{\otimes,\pi\};\ \{\nabla;\infty\},\ \{\nabla;\pi\},\ \{\alpha;\pi\} \\ \{\otimes;\nabla;\infty\};\ \{\otimes;\nabla;\pi\};\ \{\otimes;\infty;\pi\},\ \{\nabla;\infty;\pi\} \\ \{\otimes;\nabla,\infty,\pi\} \end{array}\right\}$$

$\{\infty;\pi\}$

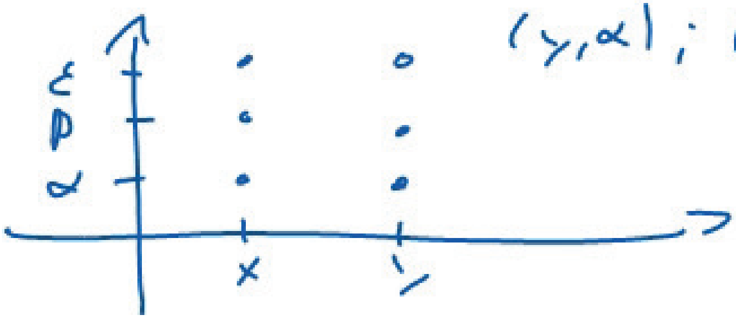
4) c)

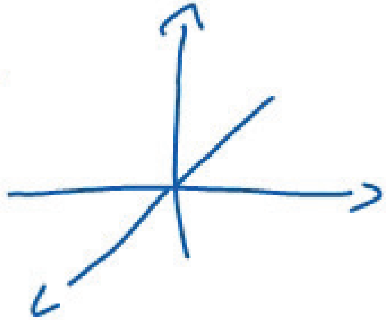
$$\{\alpha;\{1;3\}\} \longrightarrow \alpha\ ;\ \{1;3\}$$
$$\{\{\}\} \qquad\qquad \{\}$$
$$\{5;\{5\}\} \qquad\qquad 5\ ;\ \{5\}$$

$\Big\} \cup \Rightarrow A$

5) b)

$$C \times A = \{(x,\alpha);\ (x,\beta);\ (x,\varepsilon),\ (y,\alpha);\ (y,\beta);\ (y,\varepsilon)\}$$





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) $\dfrac{(8u^7v^{-2}w)^4}{(81v^{-3}s^{-2}t^3)^2} \cdot \dfrac{(2^4u^3v^{-4}w^{-2})^{-3}}{(3^4v^{-3}s^4t^3)^{-2}} =$

$\dfrac{2^{12}u^8v^{-8}w^4 \cdot 2^{-12}u^{-9}v^{12}w^6}{3^8v^{-6}s^{-4}t^6\, 3^{-8}v^6s^{-8}t^{-6}} = \dfrac{u^{-1}v^4w^{10}}{s^{-12}}$

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

a) $\sqrt{x^3} = x^{3/2} = 125$ | $^{2/3}$ $\quad \left(x^{3/2}\right)^{2/3} = x^{3/2 \cdot 2/3} = x^1 = 125^{2/3}$

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