

209073352 ווען נאך:

$$\sigma_{\text{year}=2000}(\text{stud}) \quad .k$$

$$\pi_{\text{id}}(\sigma_{\text{year}=2000}(\text{stud})) \quad .n$$

$$\pi_{\text{id}, \text{grade}}(\sigma_{\text{year}=2000}(\text{stud} \times \text{stud_course})) \quad .d$$

From down up: $\pi_{\text{id}}(\sigma_{\substack{s_1.\text{id}=s_2.\text{id} \\ s_1.\text{grade} \leq s_2.\text{grade} \\ s_1.\text{course_name} = \text{algo AND } s_2.\text{course_name} = \text{db}}}(\text{stud_course}) \times \rho_{s_2}(\text{stud_course})) \quad .?$

From down up: $\pi_{\text{name}}(\text{stud}) - \quad .n$

$$\pi_{s_3.\text{name}}$$

$$\sigma_{s_1.\text{id}=s_2.\text{id}}$$

$$\sigma_{s_1.\text{grade} \geq s_2.\text{grade}}$$

$$\sigma_{s_1.\text{course_name} = \text{algo AND } s_2.\text{course_name} = \text{db}}$$

$$\rho_{s_1}(\text{stud_course}) \times \rho_{s_2}(\text{stud_course}) \times \rho_{s_3}(\text{stud})$$