

p) $\pi_{\text{distinct}} p.\text{name_professor}$

$\sigma_{\neg \exists p.\text{id_professor} = d.\text{id_professor}}$

$pp(\text{professor})$

$pd(\text{disciplina})$

q) $\pi_{a1.\text{name_aluno}, a2.\text{name_aluno}}$

$\sigma_{a1.\text{id_aluno} < a2.\text{id_aluno}}$

$pa1(\text{aluno})$

$pa2(\text{aluno})$

r) $\pi_{d.\text{id_disciplina}, d.\text{name_disciplina}}$