

Identity Theory Jigsaw Lesson  
Work Group: Superlatives

I. Translation key:

c: Creed; d: Dwight; j: Jim; m: Michael; n: Jan; p: Pam; r: the Scranton branch; u: the Utica branch

Ax: x is an accountant; Bx: x is a branch; Ex: x is an employee; Ox: x is an office; Sx: x is a salesperson

Bxy: x is bigger than y; Hxy: x has y; Ixy: x is in y; Mxy: x is smaller than y; Nxy: x is nicer than y; Zxy: x is lazier than y

Nxyz: x is nearer than y to z.

II. Examine the translations below, which use the key in I.

1. Jim is a nicer salesperson than Dwight.

$Sj \bullet Sd \bullet Njd$

2. Jim is the nicest salesperson.

$Sj \bullet (x)[(Sx \bullet x \neq j) \supset Njx]$

3. Utica is the smallest branch.

$Bu \bullet (x)[(Bx \bullet x \neq u) \supset Mux]$

4. Creed is the laziest employee in the office.

$Ec \bullet Ico \bullet (x)[(Ex \bullet Ixo \bullet x \neq c) \supset Zcx]$

5. Michael is the employee who has the biggest office.

$Em \bullet (\exists x)\{(Ox \bullet Hmx) \bullet (y)\{(Ey \bullet y \neq m) \supset (z)[(Oz \bullet Hyz) \supset Bxz]\}\}$

III. Try these, using the key in I.

6. Scranton is the biggest branch.

7. Utica is the nearest branch to the Scranton branch.

8. Some employee is the biggest accountant in the office.