

John eats

$\exists e(eat(e) \ \& \ eater(e, John))$

a student eats

$\exists x(Student(x)) \ \& \ \exists e(eat(e) \ \& \ eater(e, x))$

all students eat

$\forall x(Student(x)) \ \& \ \exists e(eat(e) \ \& \ eater(e, x))$

John eats a sandwich

$\exists y(Sandwich(y)) \ \& \ \exists e(eat(e) \ \& \ eater(e, John) \ \& \ eaten(e, y))$

all students eat or drink

$\forall x(Student(x)) \ \& \ \exists e(eat(e) \ \& \ eater(e, x) \mid drink(e) \ \& \ drinker(e, x))$

John drinks a soda or eats a sandwich

$\exists e(\exists y(Soda(y)) \ \& \ drink(e) \ \& \ drinker(e, John) \ \& \ drank(e, y) \mid (\exists z(Sandwich(z)) \ \& \ eat(e) \ \& \ eater(e, John) \ \& \ eaten(e, z)))$

John or Mary eats

$\exists x(x(John) \mid x(Mary)) \ \& \ \exists e(eat(e) \ \& \ eater(e, x))$

a student writes an essay or eats

$\exists x(Student(x)) \ \& \ \exists e(\exists y(Essay(y)) \ \& \ write(e) \ \& \ writer(e, x) \ \& \ written(e, y) \mid eat(e) \ \& \ eater(e, x))$

every student eats a sandwich or drinks a soda

$\forall x(Student(x)) \ \& \ \exists e(\exists y(Sandwich(y)) \ \& \ eat(e) \ \& \ eater(e, x) \ \& \ eaten(e, y) \mid \exists z(Soda(z)) \ \& \ drink(e) \ \& \ drinker(e, x) \ \& \ drank(e, z))$

John eats every sandwich

$\forall x(Sandwich(x)) \ \& \ \exists e(eat(e) \ \& \ eater(e, John) \ \& \ eaten(e, y))$

John eats every sandwich or bagel

$\forall x(Sandwich(x) \vee Bagel(x)) \& \exists e(eat(e) \& eater(e, John) \& eaten(x, y))$

nobody eats a bagel

$\exists x(x(Nobody)) \& \exists y(Bagel(y)) \& \exists e(eat(e) \& eater(e, x) \& eaten(e, y))$

a person does not eat

$\exists x(Person(x)) \& \neg \exists e(eat(e) \& eater(e, x))$

Jack does not eat or drink

$\neg \exists e(eat(e) \& eater(e, Jack) \vee drink(e) \& drinker(e, Jack))$

no student eats a bagel

$\neg \exists x(Student(x)) \& \exists e(\exists y(Bagel(y)) \& eat(e) \& eater(e, x) \& eaten(e, y))$

John eats in Seattle

$\exists e(eat(e) \& eater(e, John) \& in(e, Seattle))$