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(13)

1) Buat FOL dari kalimat berikut:
- Every Gardener likes the sun
- All purple mushrooms are poisonous
- You can fool some of the people all of the time
- You can fool all of the people some of the time
- No purple mushroom is poisonous

Jawab:

-> Every Gordener likes the sun
Sun = Sun (constant)
X likes the sun = Likes (X, Sun)
X is gardener = gardener (x)
Every Gardener likes the sun = $\forall x$ (gardener (x) $\rightarrow$ Likes (x, sun)

-> All purple mushrooms are poisonous
X is mushrooms = mushrooms (x)
X is purple = purple (x)
X is poisonous = poisonous (x)
All purple mushrooms are poisonous = $\forall x$ (mushrooms (x) $\wedge$ purple (x)) $\rightarrow$ poisonous (x

-> You can fool some of the people all of the time
You = you (constant)
y is person = person (y)
Z is time = time (z)
You can fool y when z = canfool (you, y, z)
you can fool y person when z time = person (y) $\wedge$ time (z) $\rightarrow$ canfool (you, y, z)
you can fool some of the people all of the time = $\exists y \forall z$ (person (y) $\wedge$ time (z)) $\rightarrow$ canfool (you, y, z)

-> You can fool All of the people ~~else~~ Some of the time:
Sama spt sebelumnya = $\forall y \exists z$ (person (y) $\wedge$ time (z)) $\rightarrow$ canfool (you, y, z)

-> No purple mushroom is poisonous
No = $\neg$
X is mushroom = mushroom (x)
X is poisonous = Poisonous (x)
X is purple = purple (x)
Purple mushroom X is poisonous = mushroom (x) $\wedge$ purple (x) $\rightarrow$ poisonous (x)
No purple mushroom is poisonous = $\forall x$ (mushroom (x) $\wedge$ purple (x)) $\rightarrow \neg$ poisonous (x)

2) All cats like fish, Cats eat everything they like, and ziggy is a cat
Does ziggy eat Fish?

•> FOL : → All cats like fish
X is cat = cat(x)
~~X is fish = fish~~ fish = fish (constant)
X like fish = like (X, fish)
All cat like fish = $\forall x$ (cat(x)) → like (x, fish)
→ Cats eat everything they like
X is cat = cat(x)
Y is liked by x = like (x, y)
~~cat~~ x eat y = eat (x, y)
cats eat everything they like = $\forall x \forall y$ (cat(x) $\wedge$ like(x, y)) → eat (x, y)
→ Ziggy is a cat = cat (ziggy)
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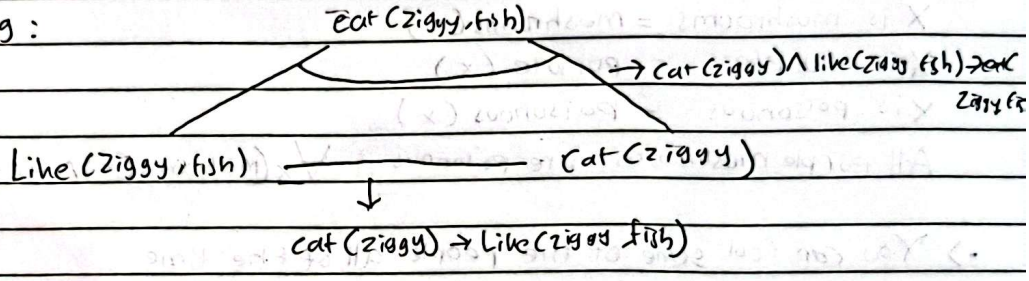
•> Forward chainning :



•> Backward chainning