

Showing that an argument is  
invalid

# Is this argument valid?

- No monkeys are friendly, and some friendly things are not wise. So some wise things are not monkeys.

No monkeys are friendly

Some friendly things are not wise

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Some wise things are not monkeys

# Counter-example 'world'



unfriendly monkey  
wise



friendly dog  
not wise

T No monkeys are friendly

T Some friendly things are not wise

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F Some wise things are not monkeys

# Does the conclusion follow?

Some philosophers are European

Some Europeans are fools

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Some philosophers are fools



European  
philosopher



European  
fool

T Some philosophers are European

T Some Europeans are fools

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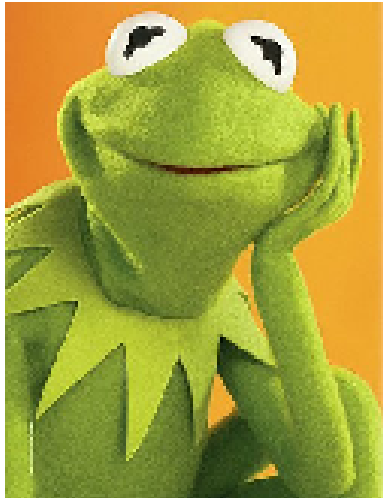
F Some philosophers are fools

All politicians are ruthless

No politician can lack charm.

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All charming people are ruthless



charming  
not ruthless



politician  
charming  
ruthless

T

All politicians are ruthless

T

No politician can lack charm.

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F

All charming people are ruthless

Some cubes are not large

No large thing back of c

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Some cubes are back of c

