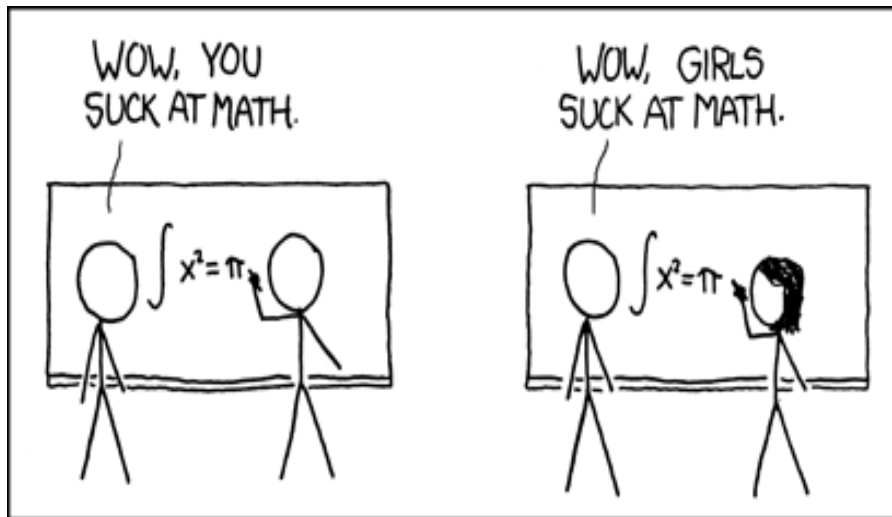# General Reasoning Strategies:
Inductive and Deductive Arguments

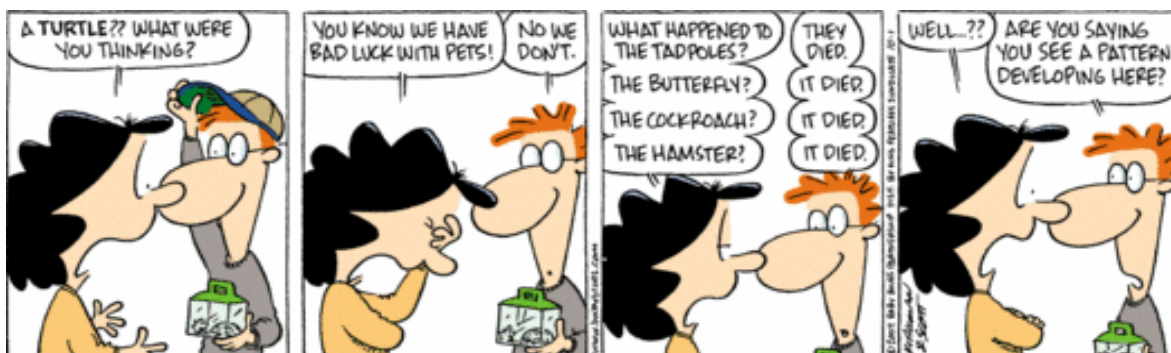What's wrong with the reasoning in the second example?

induction   to reason inductively is

to *recognize patterns* within or among a set of data
and then, based on those patterns,

to form assumptions (about the past or present)
and/or
to make predictions (about the future)

deduction   to reason deductively is

>   to move from true (or assumed to be true) premises to a true conclusion

>   **major premise:** All men are mortal.
>   **minor premise:** Socrates is a man.
>   **conclusion:**   So, Socrates is mortal.

In a *deductive argument* (usually a syllogism), a claim is arrived at by combining existing (previously-established), related claims.

"A syllogism leads to a necessary conclusion from universally true premises."   --Aristotle, in *Prior Analytics*

enthymeme   often seen as a "truncated syllogism," which is a syllogism missing a major and/or minor premise (or, more rarely, the conclusion)

The audience supplies the missing premise(s) (or, again, more rarely, the conclusion).

usually leads to a *tentative* conclusion from *probable* premises

"She's a terrible friend; she lies all the time!"

"Jeff's not going to do well on the exam. He hardly studied at all."

"Abortion stops a beating heart."