

Methods of Proof

from NCTM Mathematics Teacher?

Proof by obviousness	“The proof is so clear that it need not be mentioned.”
Proof by general agreement	“All in favor?...”
Proof by imagination	“Well, we can pretend it’s true...”
Proof by convenience	“It would be very nice if it were true, so...”
Proof by necessity	“Without it, the entire structure of mathematics would crumble to the ground.”
Proof by plausibility	“It sounds so good it must be true.”
Proof by intimidation	“Don’t be stupid, of course it’s true.”
Proof by lack of time	“We are out of time, so I leave the proof to you.”
Proof by postponement	“The proof for this is long and arduous, so it is given in the appendix.”
Proof by accident	“Wow! Look at that!”
Proof by mumbo-jumbo	$\forall \alpha \in \Phi, \exists \beta \ni \alpha \oplus \beta \rightarrow e$ (example omitted)
Proof by profanity	“We define it to be true.”
Proof by definition	“It’s true because it’s true.”
Proof by tautology	“As we see on page 289...”
Proof by reference	“I know I saw it somewhere...”
Proof by lost reference	“The proof is beyond the scope of this course...”
Proof by calculus	When intimidation fails...
Proof by terror	“Does anyone really want to see this?”
Proof by lack of interest	“If it’s on the problem sheet, it must be true!”
Proof by logic	Use only if general agreement is impossible.
Proof by majority rule	“Let A be the number such that this proof works...”
Proof by clever variable choice	“This proof is the same as the last.”
Proof by tessellation	“And the Lord said, ‘Let it be true.’”
Proof by divine intervention	“I don’t care what you say, it’s true!”
Proof by stubbornness	“This proof reduces to $1 + 1 = 2$.”
Proof by simplification	“Well, it works for 17, so it works for all reals.”
Proof by hasty generalization	“Now, everybody close their eyes...”
Proof by deception	“Oh please, let it be true.”
Proof by supplication	“It’s just like...”
Proof by poor analogy	“If it’s not true, we can invent a new math where it is.”
Proof by design	“Donald Knuth says it’s true, so it must be.”
Proof by authority	“I just have this gut feeling...”
Proof by intuition	