

010920240845

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Dimostrazione $p \wedge q \rightarrow q \wedge p$.

```
[1]: import subprocess

def run_lean4(code):
    with open("proof.lean", "w") as f:
        f.write(code)
    result = subprocess.run(["/home/mrz/lean-4.10.0-linux/bin/lean", "--run", "proof.lean"], capture_output=True, text=True)
    return result.stdout

lean4_code = """
theorem and_commutative (p q : Prop) : p ∧ q → q ∧ p :=
  fun hpq : p ∧ q =>
    have hp : p := And.left hpq
    have hq : q := And.right hpq
    show q ∧ p from And.intro hq hp
"""

print(run_lean4(lean4_code))
```

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[ ]:
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