

Exercise 8.2

A

1. **Conclusion:** Eating that mushroom is entirely safe.
 - **Appeal to Authority:** The speaker has a PhD in Middle Eastern Studies.
 - **Legitimacy:** Fallacious. Having a PhD in Middle Eastern Studies does not qualify someone to make determinations about the safety of eating mushrooms.
2. **Conclusion:** The Holocaust never happened.
 - **Appeal to Authority:** Anne Carver works for the History Channel.
 - **Legitimacy:** Fallacious. Working for the History Channel doesn't automatically make one's claims about historical events true. The veracity of the Holocaust is well-documented.
3. **Conclusion:** Your motherboard is shot.
 - **Appeal to Authority:** The speaker has been fixing this kind of computer for 20 years.
 - **Legitimacy:** Legitimate. This is an appeal to direct, relevant experience rather than a title.
4. **Conclusion:** Atheism is probably true.
 - **Appeal to Authority:** Clara has a PhD in philosophy and is knowledgeable about the arguments for and against the existence of God.
 - **Legitimacy:** Fallacious. Even though Clara has a PhD in philosophy, her personal beliefs do not determine the truth value of a philosophical question.
5. **Conclusion:** God probably exists.
 - **Appeal to Authority:** Al went to seminary school, which provides in-depth training in religion.
 - **Legitimacy:** Fallacious. Seminary school trains individuals in religious doctrine, but attending such a school and holding a belief does not prove the existence of God.
6. **Conclusion:** U.S. foreign policy is unjust.
 - **Appeal to Authority:** Noam teaches at MIT.
 - **Legitimacy:** Fallacious. While Noam may be educated and informed, teaching at MIT does not automatically make one an authority on U.S. foreign policy.
7. **Conclusion:** Climate change is real and is significantly caused by human activity.
 - **Appeal to Authority:** 97% of climate scientists believe so.
 - **Legitimacy:** Legitimate. This is an appeal to a strong consensus within a relevant field of expertise.
8. **Conclusion:** All Adderall does is mask the problem; it doesn't get to the reason why.
 - **Appeal to Authority:** "You don't know the history of psychiatry; I do." - Tom Cruise
 - **Legitimacy:** Fallacious. Tom Cruise is not recognized as an authority in psychiatry or medicine. Knowing the history of psychiatry does not automatically qualify one to make clinical statements about specific medications.

B

1. **Proposition:** Education in the liberal arts has value for our society because it produces better citizens.
 - **Ad Hominem or Reasonable Vetting:** Ad hominem.
 - **Explanation:** The attack focuses on Noam's character as "another elitist college professor" rather than addressing the substance of his argument about the liberal arts.
2. **Proposition:** The oil and gas industry doesn't need to be heavily regulated.
 - **Ad Hominem or Reasonable Vetting:** Reasonable vetting.
 - **Explanation:** Pointing out a potential conflict of interest due to someone's employment in the oil industry is a legitimate concern about bias.
3. **Proposition:** The oil and gas industry doesn't need to be heavily regulated.
 - **Ad Hominem or Reasonable Vetting:** Ad hominem.
 - **Explanation:** The focus is solely on discrediting the source of the claim (the individual) without addressing the merit of the argument itself. Thus, it's an attack on the character or circumstances of the person making the argument rather than the argument itself.
4. **Proposition:** The Cubs have an especially strong lineup this season.
 - **Ad Hominem or Reasonable Vetting:** Reasonable vetting.
 - **Explanation:** Pointing out that Vanessa is a "diehard Cubs fan" is not a direct attack on her character but rather a note about potential bias in her claim.
5. **Proposition:** Archaeologists have recently discovered undersea ruins of an unknown ancient city, which appears to have been highly advanced.
 - **Ad Hominem or Reasonable Vetting:** Reasonable vetting.
 - **Explanation:** The concern is based on the friend's track record of sharing unreliable information, which is a legitimate reason for skepticism until further confirmation is available.
6. **Proposition:** The president is getting divorced.
 - **Ad Hominem or Reasonable Vetting:** Reasonable vetting.
 - **Explanation:** The credibility of the source (The National Enquirer) is questioned based on other improbable stories in the same issue, indicating that the source may not be reliable.
7. **Proposition:** We have no moral obligation to give money to the poor.
 - **Ad Hominem or Reasonable Vetting:** Ad hominem.
 - **Explanation:** Calling someone a "selfish jerk" is a direct attack on character and doesn't address the substance or validity of the argument they presented.

C

1. **Argument:**
 - **Premise 1:** Thomas Jefferson said that a just democracy requires a wall of separation between church and state.
 - **Premise 2 (unstated):** If someone has moral failings in one area, their opinions in another area are invalid.
 - **Premise 3:** Jefferson owned slaves.

- **Conclusion:** Jefferson's opinion on the separation of church and state is invalid.

Reconstruction: This argument is difficult to render cogent because the implied premise (Premise 2) is flawed. Owning slaves doesn't necessarily invalidate Jefferson's views on church and state, as they're unrelated issues. Therefore, the argument cannot be rendered cogent as constructed.

2. Argument:

- **Premise 1:** Paul Krugman says that tax cuts for the wealthy will hurt our economy.
- **Premise 2 (unstated):** Ivy League elitists can't be trusted or taken seriously on economic matters.
- **Premise 3:** Paul Krugman is an Ivy League elitist.
- **Conclusion:** We need not take Krugman seriously.

Reconstruction: The implied premise (Premise 2) is problematic. The argument would be more cogent if it focused on Krugman's economic arguments rather than his association with the Ivy League. As it stands, the argument is an ad hominem and cannot be rendered cogent in its current form.

3. Argument:

- **Premise 1:** Paul Krugman says that the austerity policies of the EU are hindering economic growth, rather than stimulating growth.
- **Premise 2:** Paul Krugman has a Nobel Prize in economics. (Most of what he said on the economic affairs is correct)
- **Premise 3:** austerity policies of the EU is an economic affair.
- **Conclusion (unstated):** Therefore, the austerity policies of the EU are likely hindering economic growth.

Reconstruction: This argument can be rendered cogent by stating the conclusion explicitly and relying on Krugman's expertise in economics (as indicated by his Nobel Prize) to bolster his claim.

4. Argument:

- **Premise 1:** The only studies to indicate that cell phone use while driving might be safe have been studies that came out of Marlsen's lab.
- **Premise 2:** Marlsen's early research was sponsored by LG, who manufactures cell phones.
- **Conclusion (unstated):** Therefore, the studies from Marlsen's lab might be biased and shouldn't be taken at face value.

Reconstruction: The argument can be rendered cogent by explicitly stating the conclusion. The potential conflict of interest (sponsorship by LG) raises legitimate concerns about the reliability of Marlsen's research on cell phone safety while driving.

Exercise 8.3

Regard to two recent *Opinions of the Court*.

[Students for Fair Admissions, Inc. v. President and Fellows of Harvard College](#)

(a) & (c)

News and credential are listed below:

News:

<https://www.nytimes.com/live/2022/10/31/us/affirmative-action-supreme-court>

Author:

<https://www.nytimes.com/by/adam-liptak> (Yale for a law degree and then practiced law for 14 years)

<https://www.wsj.com/articles/supreme-court-cases-affirmative-action-free-speech-student-debt-91549085>

Author:

<https://www.wsj.com/news/author/jess-bravin> (Graduate of Harvard College and holds a law degree from UC Berkeley)

<https://www.wsj.com/news/author/jan-wolfe> (Washington, D.C.-based business legal affairs correspondent for the WSJ)

News:

<https://www.foxnews.com/politics/supreme-court-hear-case-end-40-years-race-based-affirmative-action-university-admissions>

Author:

<https://www.foxnews.com/person/c/haley-chi-sing> (She has previously worked at the Orange County District Attorney's Office)

(b)

Positive: "end 40 years of race-based affirmative action"

Negative: "Such a decision would jeopardize [affirmative action at colleges and universities around the nation](#)"

Completely different opinion.

These people have more or less the expertise related to legal affairs. (This could be shown from the degree / jobs they have received and done in the past). Yet, since it's a complicated and controversial issue, none of them could be really considered as true authorities. (*Opinions of the Court* for this ruling is more than 200 pages long)

[Dobbs v. Jackson Women's Health Organization](#)

(a) & (c)

News and credential are listed below:

News

<https://www.foxnews.com/opinion/supreme-court-abortion-decision-empowers-women>

Author:

<https://www.foxnews.com/person/h/erin-hawley>

News:

<https://www.washingtonpost.com/politics/2022/06/24/supreme-court-ruling-abortion-dobbs/>

https://www.washingtonpost.com/people/robert-barnes/?itid=ai_top_barnesra (He has covered the Supreme Court since November 2006.)

https://www.washingtonpost.com/people/ann-e-marimow/?itid=ai_top_sargentam (She previously covered state government and politics at the San Jose Mercury News in California and the Concord Monitor in New Hampshire.)

News:1

<https://apnews.com/article/abortion-count-dobbs-ruling-states-3acd4ba421b9f4a5ea0003de6c67260b>

Author:

<https://apnews.com/author/geoff-mulvihill>

(b)

Positive: "...empowers women"

Negative: a stunning ruling that could alter the nation's political landscape and leaves states free to drastically reduce or even outlaw a procedure that abortion rights groups said is key to women's equality and independence.

Completely different opinion.

Some of the author doesn't have related past experience, others only have a past experience in reporting relevant topic, but not a degree or professional certificate / proof. Considering this is also a controversial issue, none of them could be considered as true authorities.

This is about ingrown toenails.

<https://www.mayoclinic.org/diseases-conditions/ingrown-toenails/symptoms-causes/syc-20355903>

<https://orthoinfo.aaos.org/en/diseases--conditions/ingrown-toenail/>

https://www.health.harvard.edu/newsletter_article/foot-health-what-to-do-about-an-ingrown-toenail

Mayo Clinic, and American Academy of Orthopaedic Surgeons, and Harvard Medical School are organization / institution that are well-known authority on the health related topics. They have established their authority / reliability on these past subjects. (Also, ingrown toenails is not something that is *controversial*, they all agree on its symptom and typical treatment). Therefore, we could believe that they are true authorities on this subjects.

Exercise 8.4

1.

https://en.wikipedia.org/wiki/Integrating_factor

This page is reliable, since I have learnt this before in my math class, and this is the same as multiple math textbook I have used before.

The revision history primarily introduced minor format adjustments to enhance the presentation of mathematical formulas. These changes aimed to make the content more visually appealing and user-friendly. Additionally, more detailed steps were incorporated into some formula derivations in response to feedback from the "talk" section. Some users found certain steps challenging to grasp, necessitating these modifications.

A few significant updates were made, including the addition of new sections detailing the diverse applications of the integrating factor in various contexts. This expansion provides readers with a broader understanding of the topic.

In the "talk" section, there's an ongoing debate regarding the appropriate notation for the integrating factor. Some participants advocate for using \mathbf{M} , while others prefer the symbol μ . This discussion highlights the variations in notation preferences within the mathematical community.

Furthermore, a few contributors pointed out that the definition of the integrating factor presented in the article slightly diverges from the standard definitions found on other pages. This observation underscores the importance of maintaining consistency across different sources.

Apart from these points, no other major discussions or controversies surround the content of the article.

3.

<https://www.cancer.org/cancer/risk-prevention/medical-treatments/abortion-and-breast-cancer-risk.html>

In this website, it summarized few past research on this topic, and here are some info listed by the website:

Counter-evidence (no link)

the researchers found that induced abortion(s) had no overall effect on the risk of breast cancer.

no link between either spontaneous or induced abortions and breast cancer.

There was no difference in breast cancer risk between the group who had either spontaneous or induced abortions and those who had not had an abortion.

Evidence (Link)

They found about an 11% increased risk of breast cancer in women who reported having an induced abortion.

Some other retrospective studies published since then have also found an increased risk

For determination whether this claim is true, all the existing research needs to be reviewed, and depending the number of evidence and counter-evidence, and the strength of them (in this case it's the strength of these observational studies, where the sample size matters, also it's a important factor whether they have excluded bias that might appear)

The source included are trustworthy because (1) sample size is big (2) potential bias is addressed (3) it's posted on journal with credibility (4) referred here by American Cancer Society, a renown organization.

The counterevidence and evidence seems both convincing for me, I could not decide / evaluate whether the original claim is true or not.