Or...What is wrong with this statement?
What is faulty reasoning and faulty logic?

- First of all, **faulty reasoning and faulty logic are two different ways to say the same thing.**
- To make this easier on all of us, we are going to use the term “logic” instead of reasoning simply because it’s shorter!
- If you see the term “faulty reasoning” on the STAAR Reading Test or on a Benchmark Test, just know that it’s the same thing as faulty logic.
So, what is faulty logic?

- Let’s break it down.
  - **Faulty** = having faults or imperfect
  - **Logic** = reason or sound judgment
- Therefore, faulty logic is an imperfect reason.
- Faulty logic is another kind of persuasive technique.
Where do we see faulty logic used?

- In newspaper editorials
- In commercials
- In print ads
- In conversations
- In books
- In magazines
- In T.V. shows

We see faulty logic EVERYWHERE!
Why do we have to learn about it?

- You will be asked to identify faulty logic on the STAAR Reading Test and on the Benchmark Test.
- If you learn to recognize faulty logic, you will become a more astute consumer of products and information.
1st Type of Faulty Logic: Circular Reasoning

- **DEFINITION:** The writer (or speaker or ad) supports a claim with restatements of that same claim. The argument goes around and around with the reason making the same claim as the original argument.

- **EXAMPLE:** John Updike is a wonderful writer because he writes so well.

- **EXPLANATION:** The second half of the statement says basically the same thing as the first half.
2nd Type of Faulty Logic:
Overgeneralization

**DEFINITION:** The writer reaches conclusions from a limited number of facts. (Look for words such as **all**, **every**, and **always**.)

**EXAMPLE:** “I loved that movie we saw last night with Brad Pitt. I am going to rent all of his movies, and I am sure I’ll like all of them.”

**EXPLANATION:** It is an imperfect judgment (or faulty logic!) to assume that you will love all Brad Pitt movies just because you loved one!
3rd Type of Faulty Logic: Self-Contradiction

DEFINITION: The writer states a position that contradicts an earlier stated premise.

EXAMPLE: As Mayor, my top priority will be improving education. So my first act of office will be to cut funding for our public schools.

EXPLANATION: Cutting public school funding contradicts the mayor’s first statement that improving education will be his top priority.
4th Type of Faulty Logic: False Causality

- **DEFINITION:** This occurs when two events happen at the same time, and an assumption is made that one event causes the other.

- **EXAMPLE:** Our house was burglarized right after that new family moved in next door.

- **EXPLANATION:** This statement attributes a false cause (new family next door) to the effect (the burglary).
5th Type of Faulty Logic: Over-Simplification

**DEFINITION:** This occurs when a single cause is assumed to have created a problem or an issue. In reality, the problem or issue may have been created by a number of causes.

**EXAMPLE:** The cause of the Civil War was slavery.

**EXPLANATION:** The above statement is too simplistic. Slavery was only one of several reasons the Civil War was fought.
6th Type of Faulty Logic: Assumptions

DEFINITION: This occurs when the writer may be proven false or may be merely stating an opinion.

EXAMPLE: The Superstition Mountains are the most beautiful mountains in Arizona.

EXPLANATION: Yes, these mountains are beautiful, but that is only one man’s opinion. Others may think another mountain range in Arizona is more beautiful.
Now You Try!

- On your whiteboard, write the names of the six different types of faulty logic.
- Draw a box next to each name.
- Read the examples.
- Place a check next to correct answer! √√
What type of faulty logic is the following statement?

**STATEMENT**: I argued with Mrs. Coulter before I turned in my homework so I got a bad grade on my paper.
THE ANSWER: False Causality
WHY? The student suggests that because he/she argued with his English teacher prior to turning in a paper (cause), the result/effect was a bad grade.

STRATEGY: Try to identify an end result or effect. Ask yourself: Did the reason given really cause the end result?
What is the faulty logic in the following statement?

- **STATEMENT**: I hated the movie because it was the worst movie I ever saw.
THE ANSWER: Circular Reasoning

WHY? “…the worst movie I ever saw” is basically the same thing as “I hated the movie.” It’s saying the same thing.

STRATEGY: Look at the end of the sentence. Is it really similar to the beginning? Is it going around and around?
What is the faulty logic here?

- **STATEMENT**: All football players are poor students.
- **THE ANSWER**: Overgeneralization
- **WHY?** This statement takes in an entire group of people all at once. It may be that some football players are poor students, but it is unfair to suggest that it is true of all football players.
- **STRATEGY**: Remember! Look for words like *all, every, and always*. 
STATEMENT: I know why you failed all your classes last semester. You don’t study.
- **THE ANSWER**: Oversimplification

- **WHY?** There could be many reasons why a student experiences difficulty in school. Reducing the problem to one solution is oversimplifying.

- **STRATEGY**: Look for an effect that has **MANY** possible causes.
And this one?

- **STATEMENT**: The first rule is that there are no rules.
**THE ANSWER:** Self-Contradiction

**WHY:** If there are no rules, there can be no first rule!

**STRATEGY:** Look at the beginning of the sentence; look at the end. Are they the opposite of each other?
How about this type of faulty logic?

- **STATEMENT**: The whole state of Arizona is flat desert.
**THE ANSWER**: Assumption 

**WHY?** People who have never been to Arizona assume it’s flat desert because of TV / film images of saguaro cacti and desert. 

**STRATEGY**: Ask yourself: *Is this statement true?* Often, in an assumption, the statement is either false or an opinion. Often, the assumption is based on a stereotype.
This one?

- **STATEMENT:** You got a good grade on your essay because the teacher likes you.
THE ANSWER: False Causality

WHY? This statement attributes the effect (a good grade) to a false cause (the teacher likes you).

STRATEGY: Look at the cause and effect. Ask yourself: Is this really the cause?
Try this one…

- **STATEMENT**: Juan is an impressive speaker because he always impresses his listeners deeply.
THE ANSWER: Circular Reasoning

WHY? “He impresses his listeners deeply” is basically the same thing as “Juan is an impressive speaker.” The statement is going around in circles.

STRATEGY: Look at the sentence beginning and the sentence ending. Ask yourself: Does it go around in circles?
Here’s another one to try…

- **STATEMENT**: All teenagers are irresponsible.
- **THE ANSWER**: Overgeneralization
- **WHY?** All teenagers are **NOT** irresponsible. This statement relies on stereotypes and is an unfair conclusion based on limited observations.
- **STRATEGY**: Look for the context clues—the word **all**. Ask yourself: Are all teenagers irresponsible?
Try again…

- **STATEMENT**: This class is awesome because we do awesome things in here.
THE ANSWER: Circular Reasoning

WHY? “…we do awesome things” is very similar to “This class is awesome.” Again, the last half of the statement is similar to the first half; it’s going around and around in a circle.

STRATEGY: Look at sentence beginnings and sentence endings. Are they similar?
What type of faulty logic is this one?

- **STATEMENT**: I am proud that I am humble.
**THE ANSWER:** Self-Contradictory

**WHY?** Being proud is the exact opposite of being humble. The speaker is contradicting himself.

**STRATEGY:** Look at sentence beginnings and endings. *Does the beginning of the sentence contradict the ending?*
How about this one?

- **STATEMENT**: Blondes are dumb.
- **THE ANSWER**: Assumption
- **WHY?** This statement comes from the stereotype that people who are blonde are not very smart. We’ve all heard it so often that we kind of assume it’s true. (By the way, IT’S NOT TRUE!)
- **STRATEGY**: Ask yourself: Is this statement true? Is it based on a stereotype?
One Last One...

- **STATEMENT**: Teenagers have bad skin because they don’t wash their faces.
THE ANSWER: Oversimplification

WHY? This answer argues that there is only one reason for teenagers’ skin problems. In fact, there are numerous causes.

STRATEGY: Look for a cause and effect relationship. Ask yourself: Could there be more than one cause that brings about the effect? If the answer is yes, then the answer is too simple.
A Final Look at Strategies…

- **Circular Reasoning**
  - Look at sentence beginnings and endings.
  - If the faulty logic is circular reasoning, the ending will be almost the same or, at least, very similar to the beginning.
  - The logic goes around in circles.
Overgeneralization

- Look for context clues: *all, every, always, never*.
- Stereotypes may be present.
Self-Contradiction

- Look at sentence beginnings and sentence endings.
- The beginning and ending will be opposites—they will contradict each other.
False Causality

- Look for a *cause and effect relationship*.
- The *cause* will be FALSE!
Over-Simplification

- Look for a *cause and effect relationship* in the statement.
- The *causes* have been cut down to *ONE CAUSE*.
- The *ONE CAUSE* is *TOO SIMPLE!*
Assumptions

- Ask these questions:
  - Does this statement involve a stereotype?
  - Is this statement just an opinion?
  - Can this statement be proven false?

- If the answer is yes to any of these questions, then the faulty logic is probably an assumption.