

Name: \_\_\_\_\_

Hr: \_\_\_\_\_

# Digital vs. Analog Signal Project

## Your Task:

Explain why digital wave signals are a more reliable way of communicating information than analog wave signals.

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1. Use a Venn diagram to compare and contrast a digital signal versus an analog signal. \*\*\*There is going to be a lot of information at a very high level. Only use information that you actually understand and makes sense to you!.

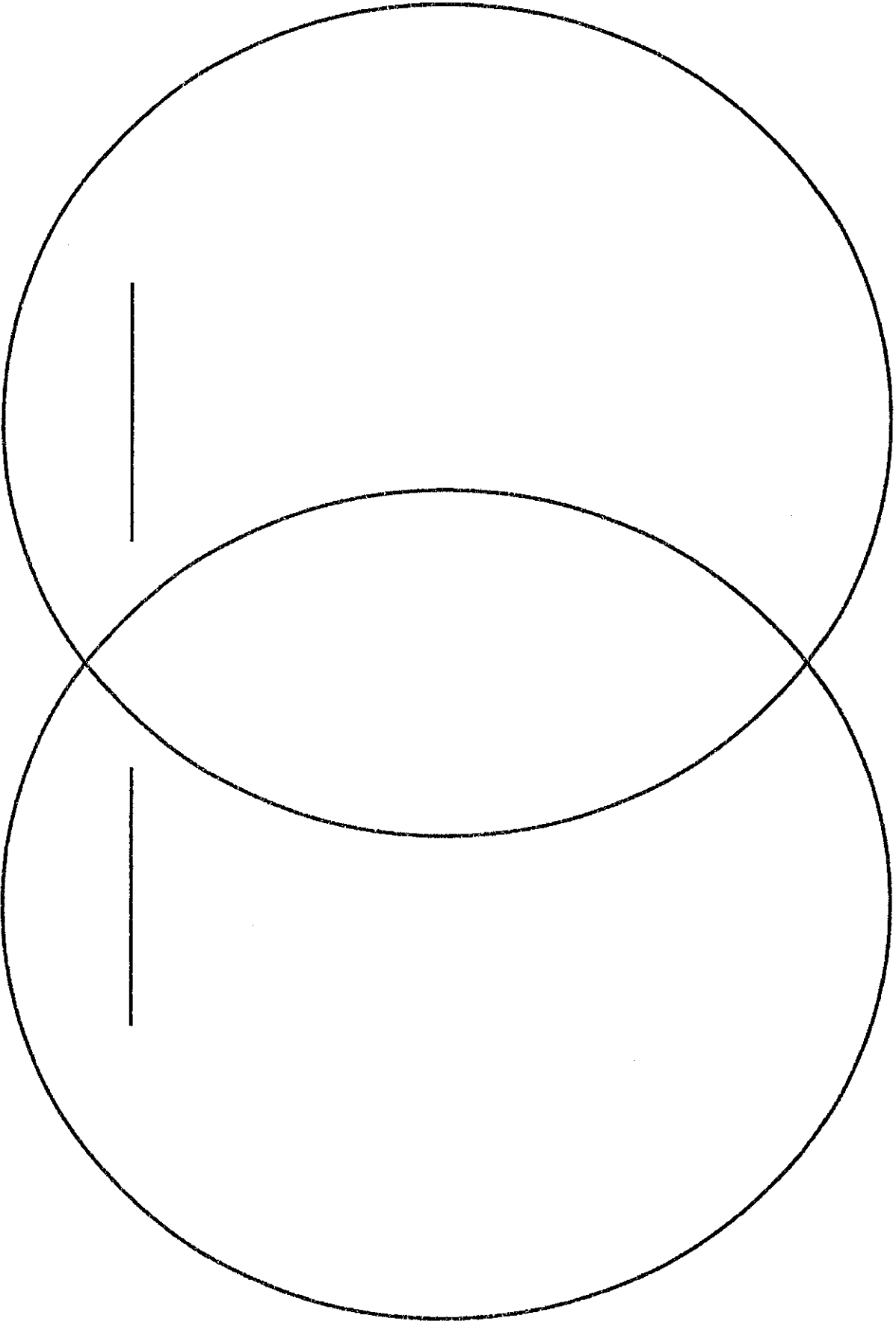
2. First, define each term and write it in the respective part of the Venn diagram. Do this by simply researching each term on the internet.

3. Go to the websites below and add information to your Venn diagram.

[http://www.diffen.com/difference/Analog\\_vs\\_Digital](http://www.diffen.com/difference/Analog_vs_Digital)

<http://www.gcsescience.com/pwav57.htm>

<http://electronics.howstuffworks.com/digital-converter-box2.htm>



4. Watch the videos below and add any further arguments you can in order to defend the claim that digital wave signals are better than analog.

<https://www.youtube.com/watch?v=XCu6L4kOF3k>

<https://www.youtube.com/watch?v=WxJKXGugfh8>

### Other helpful websites

- [http://www.diffen.com/difference/Analog\\_vs\\_Digital](http://www.diffen.com/difference/Analog_vs_Digital)
- <http://digital-signal-process.blogspot.com/2011/01/advantage-of-digital-over-analog-signal.html>
- [http://www.planetoftunes.com/digital-audio/pros-and-cons-of-analogue-and-digital-audio.html#.VNi\\_4IeVbE](http://www.planetoftunes.com/digital-audio/pros-and-cons-of-analogue-and-digital-audio.html#.VNi_4IeVbE)
- <http://www.gcescience.com/pwav57.htm>

5. Write a Claim, Evidence, and Reasoning Paragraph to support the claim that digital signals are better than analog signals. ~ *Must be typed, minimum of 8 complete sentences*

## C.E.R. Paragraph Format:

1. The topic sentence, which clearly states the claim being made. 2. The first piece of evidence, the first “point” supporting or developing the topic sentence. 3. The first set of details, supporting the first general statement or “point.” 4. The second piece of evidence, the second “point” supporting or developing the topic sentence. 5. The second set of details, supporting the second general statement or “point.” 6. The third piece of evidence, the third “point” supporting or developing the topic sentence. 7. The third set of details, supporting the third general statement or “point.” 8. The concluding sentence that restates what the writer wants the reader to know or understand after reading the paragraph.

A general example of the C.E.R. paragraph utilized in writing:

The fall is definitely my favorite season of the year. First, it is the most beautiful of the four seasons. The leaves of the trees seem to explode into glorious colors: reds, oranges, golds, and browns. Next, the temperature in the fall is perfect. The days in the low seventies let people comfortably wear whatever clothes they like, and the nighttime temperatures make for a great night's sleep. Finally, my favorite holiday of the year, Thanksgiving, is in the fall. It provides a few days off in the middle of the first months of school to visit with friends and family while enjoying delicious food. More than any other season, the fall is my favorite time of year.

