Thank you for signing up for this Critical Thinking / Argumentative Writing Challenge! Item Number: CT150001-170107A

Challenge Statement:

Read the "Hot Stuff: Generating power from waste heat" article from the August 1st, 2015 Edition of the Economist magazine. Also review the additional artifacts: a <u>partial Wikipedia entry describing "internal combustion engines"</u>, and a <u>brief passage with information from a recent survey of popular gasoline powered cars operating in the USA.</u>

Then write a response the following two questions:

Based on the Economist article, define the Seebeck effect and describe the role that graphene could play in creating a workable Seebeck-effect-powered electrical generation capability. Based on the article, and considering the other artifacts, why (or why not) might automobile engines be a promising potential application of the use of the Seebeck effect?

Instructional Note:

You may view this online, or download them to work on the challenge offline. A copyright fee has been paid to The Economist so that each student taking this assessment may have their own copy of the source article. Whether you do the challenge online or offline, please save your own copy of the response in a Word or text file of some kind. If you have trouble with the Assistments platform, feel free to email your response to **harry@cogwrite2.com**.

The anticipated time to complete this effort is 30 minutes.

Additional guidance:

Note this challenge question has two parts.

Answers should be as complete and detailed as possible based on the information provided in the article. Evidence or facts should be explicit and supported by the challenge materials, and reasoning and rationale should be explicit.

There is no required length, but answers should be cogent, comprehensive and complete.

[Participants will receive these instructions in the online Assisstments.org platform when they log in. The URL and access code will be given to participants in person once they have provided a signed Information Sheet and Consent Form.]