

# Homework #11 (755128)

Current Score: 0 out of 100

## Description

Homework 11 on Fundamental Forces, and Energy. Only 10 questions.

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### 1. Hewitt10 34.E.028. [481614] 0/10 points

Which process would release energy from gold, fission or fusion?

- fission
- fusion
- neither fission nor fusion

From carbon?

- fission
- fusion
- not fission nor fusion

From iron?

- fission
- fusion
- neither fission nor fusion

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### 2. Nuclear Energy [699288] 0/10 points

Which of the following statements about nuclear energy is true?

- We are capable of using nuclear fusion to release energy.
- The fusion products are extremely radioactive and have a long half-life.
- Nuclear fission produces more energy per pound of fuel than nuclear fusion.
- The fuel for fission is more abundant than the fuel for fusion.

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### 3. population [1039810] 0/10 points

What is the world's current population?

- close to 6 billion people
- just over 6 billion people
- close to 5 billion people
- less than 5 billion people
- close to 7 billion people

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### 4. fusion [1039808] 0/10 points

Which of the following produces the most energy per gram of material used:

- fusion of hydrogen into helium
- fusion of carbon to make nitrogen
- fission of Uranium into Thorium
- burning natural gas

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### 5. quantized orbits [1039804] 0/10 points

The main reason that electrons occupy discrete orbits in an atom is because:

- electrons are discrete particles
- energy levels are quantized

- the circumference of each allowed orbit is an integer number of electron wavelengths
  - electric forces act over quantized distances
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### 6. energy sinks [1039812] 0/10 points

Which of the following consumes the most energy in the US?

- transportation
  - industrial construction
  - heating/cooling buildings
  - outdoor lighting
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### 7. energy sources [1039811] 0/10 points

What is the primary source of electrical energy in the US?

- coal fired power plants
  - wind farms
  - solar energy
  - natural gas fired power plants
  - nuclear power plants
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### 8. tau [1039815] 0/10 points

Which of the following is the heaviest particle?

- neutrino
  - muon
  - tau
  - electron
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### 9. strong force [1039814] 0/10 points

Which is the strongest of the four fundamental forces

- weak
  - electromagnetic
  - strong
  - gravitational
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### 10. neutron [1039816] 0/10 points

What is a neutron made up of?

- one up quark and two down quarks
- a proton and an electron squeezed together
- neutrons are fundamental particles
- two W bosons

Assignment Details