6 physics group task:

Edited at 6am 6 August 2017.

Quantum physics:

1. Is using gravitons in quantum communication a good technology? Why?

Parallels between physics and other topics:

2. Physical methods are used in chemistry, biology, business, economics and sociology. Is it true? Why?

Nuclear physics:

3. What are the best protections from nuclear attacks?

http://www.secretsofsurvival.com/survival/nuclear\_attack.html

https://itsadisaster.wordpress.com/2013/04/13/how-to-protect-yourself-from-nuclear-fallout-tips-about-radiation-building-expedient-shelter-et/

Previous tasks:

4. Resubmit all the previous group tasks after solving them better.

Electric circuits:

5. Show that maximum power losses in a circuit when internal and external resistances are equal.

Prove the maximum.

E is electromotive force = e.m.f.

I is current.

R is external resistance.

r is internal resistance.

V is Voltage.

P is Power lost in the circuit.

E and r are constants.

R is the variable.

E = I(R + r).

V = IR.

P = IV = RI2.

Maximize P depending on R.

$$I= \frac{E}{R+r}$$

$$P=\frac{RE^{2}}{\left(R+r\right)^{2}}$$

E = 2.

r = 1.

http://farside.ph.utexas.edu/teaching/302l/lectures/node62.html

http://www.electronics-tutorials.ws/dccircuits/dcp\_9.html

Achievements:

6. What are the main achievements in physics in August of 2017?

Deadline: as soon as possible.