Heat and Power Problems

1. If the potential energy increases from 60J to 70J, and the total heat of the system does not change at 10J, what is the work done on the system?	A. 45 kJ B. 0J C. -25J D. 35J
2. If the total heat of the system is 300J, and the work is 400J, what is the change in energy?	A. 60J B. 80J C. 1kJ D. 700J
3. For Question#2, find the time if the power is 25W.	A. 90 sec. B. 3 min. C. 30 sec. D. 28 sec.
4. Find the power when the total heat of the system is 30J, the work is 4.5kJ and the time is four minutes.	A. 240W B. 84W C. 19W D. 360W
5. If the total heat is 10J and work done is 40J, what is the change in energy?	A. 60kJ B. 50J C. 60J D. 50kJ
6. How long will it take if 20W of power is used in question#5	A. 2.5 sec B. 5 sec C. 7.5 sec D. 10 sec
7. Find the total heat of the system when the change in energy is 60J and the work done is 45J.	A. 5.5 kJ B. 15J C. 9.8J D. 6.047J
8. How much work must be done if the toal heat of the system is 30J and the change in energy is 60J?	A. 40J B. 50J C. 30J D. 90J
9. A nuclear reaction outputs 1kJ and has 6kJ of work done on it. What is the change in energy?	A. 1kJ B. 7kJ C. 3kJ D. 5kJ
10. For question#9, what is the time generated if the power is 45W?	A. 2.6 min B. 8 min C. 35 min D. 9.1 min