Transformer Practice   Name:_____

Reflection and Self-Assessment

Completion: Circle the statement that best describes the completion of this practice.
- I completed every question on the practice.

- I did not complete some questions on the practice because:

_____

Answer Checking: Circle the statement that best describes how you checked your answers
- I checked all my answers against the key at the back and corrected any that were incorrect.

- I did not check all my answers and correct any mistakes because:

_____

Online Worked Solution: Circle the statement that best describes how you used the online worked solutions.
- I did not use the online worked solution at all.

- I used the online solution to understand some questions I got incorrect.

- I used the online solution to help me learn how to answer some questions.

Confidence: Circle the statement that best describes your confidence in answering questions of this type in the future.

- I am confident I can answer nearly any question of this type correctly without using notes or other assistance.

- I am confident I can answer **MOST** questions of this type correctly without using notes or other assistance.

- I am **NOT** confident I can answer most questions of this type correctly without using notes or other assistance.

Time: Circle the statement below that best describes the total amount of time you spent actively working on this practice:

| Less than an hour | Between one and two hours | Between two and three hours | Between three and four hours | More than four hours |

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1) Currents of 0.25 A and 0.95 A flow through the primary and secondary coils of a transformer respectively, if there are 1.0×10^3 turns in the primary coil how many turns are in the secondary coil?

2) A step-down transformer has coils of 1.20×10^3 and 1.5×10^2 turns. The transformer is connected to a 120 volt power line, and the current in the secondary coil is 5.00 A. What is the current in the primary coil?

3) Near your home the voltage of the power line is 3600 V. The transformer between your home and the line reduces this voltage to 120 V. If the transformer is to deliver 2400 J of energy each second to your house, what is the current in:

a) the primary coil

b) the secondary coil

4) A step-down transformer (N_p= 150, N_S=25) is connected to a 120 V primary line. If there is a 75Ω electrical device placed in the secondary circuit, what is the current in the primary coil?

5) If the voltage and current of the primary coil is 120 V and 3.0 A, what is the power delivered to the secondary coil?

6) If the power delivered to the secondary coil of a step-up transformer is 50.0 W from a 120 V power line, what is the current in the primary coil?

Transformer Practice   Name:_____

7) A transformer (N_p= 550, N_S=36) is connected to a 120 V power line. If the current in the secondary coil is 1.0 A, what is the power in each coil?

8) A 100 W transformer (Ns = 1500) has an input voltage of 9.0 V and an output current of 0.65 A. How many turns are on the primary coil?

Answer Key				
1) 260 turns	2) 0.63 A	3a) 0.67 A	3b) 20 A	4) 0.044 A
5) 360 W	6) 0.42 A	7) 7.85 W	8) 88 loops	