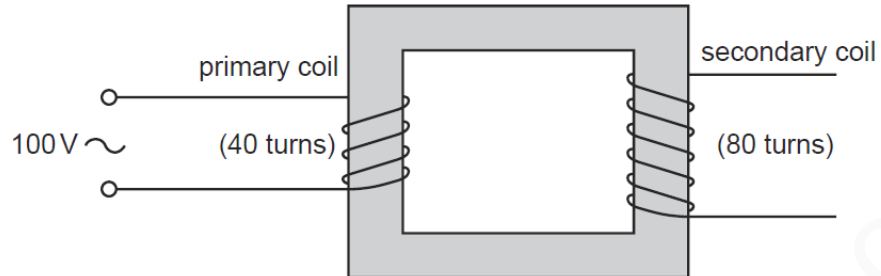


TRANSFORMERS-SET-1

1

The diagram shows a transformer with an alternating voltage of 100 V applied to the primary coil.

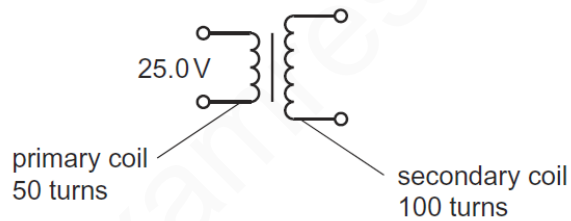


What is the voltage produced across the secondary coil?

- A** 50 V **B** 100 V **C** 200 V **D** 8000 V

2

A transformer has 50 turns on its primary coil and 100 turns on its secondary coil. An a.c. voltage of 25.0 V is connected across the primary coil.

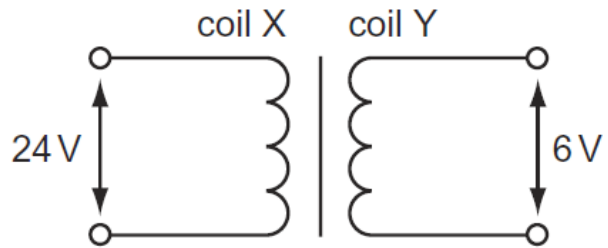


What is the voltage across the secondary coil?

- A** 12.5 V **B** 50.0 V **C** 175 V **D** 200 V

3

A transformer is to be used to produce a 6V output from a 24 V input.

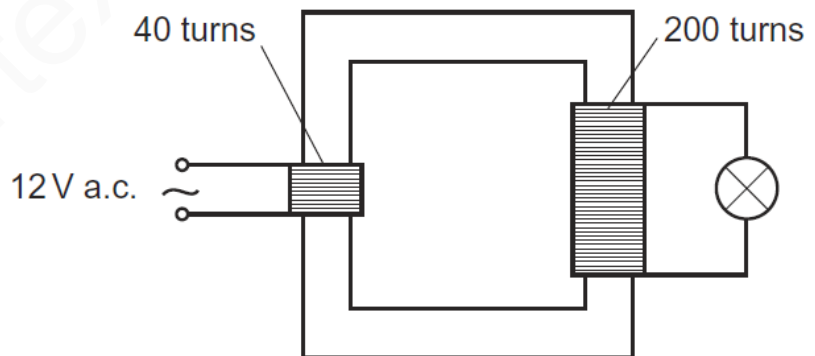


What are suitable numbers of turns for coil X and for coil Y?

	number of turns on coil X	number of turns on coil Y
A	240	60
B	240	240
C	240	960
D	960	60

4

The diagram shows a lamp connected to a transformer.

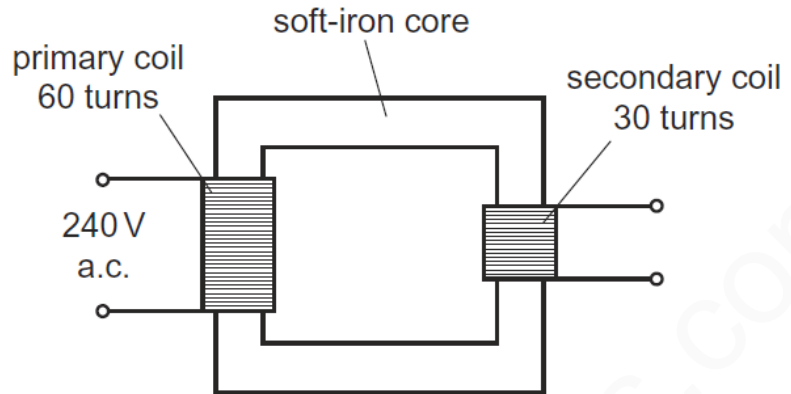


What is the potential difference across the lamp?

A 2.4V**B** 12V**C** 60V**D** 240V

5

The diagram shows a transformer connected to a 240 V a.c. supply.



What is the potential difference across the secondary coil of the transformer?

A 30 V

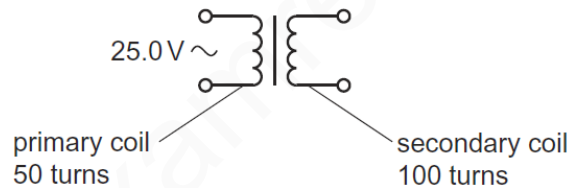
B 120 V

C 240 V

D 480 V

6

A transformer has 50 turns on its primary coil and 100 turns on its secondary coil. An alternating voltage of 25.0 V is connected across the primary coil.



What is the voltage across the secondary coil?

A 12.5 V

B 50.0 V

C 175 V

D 200 V

7

A transformer has 15 000 turns on its primary coil and 750 turns on its secondary coil.

Connected in this way, for what purpose could this transformer be used?

A to convert the 8000 V a.c. output of a power station to 160 000 V for long-distance power transmission

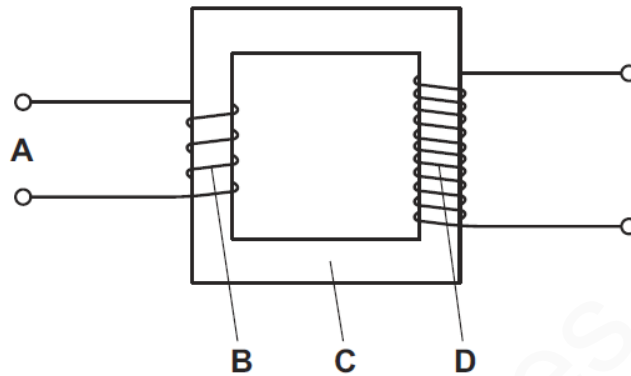
B to convert the 160 000 V d.c. supply from a power line to 8000 V for local power transmission

C to use a 12 V d.c. supply to operate a 240 V razor

D to use a 240 V a.c. mains supply to operate a 12 V motor

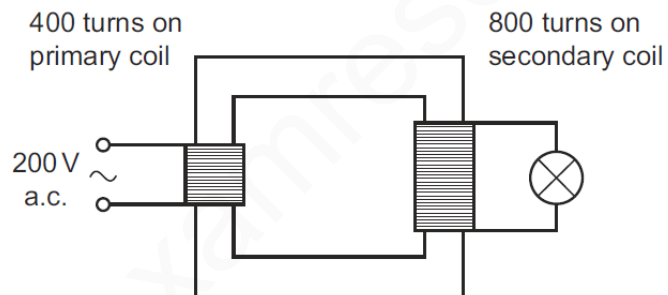
8

The diagram shows a simple step-down transformer used to decrease a voltage.
Which part is the primary coil?



9

The diagram shows a transformer. The input voltage and the number of turns on each coil are shown.



What is the output voltage?

A 100 V

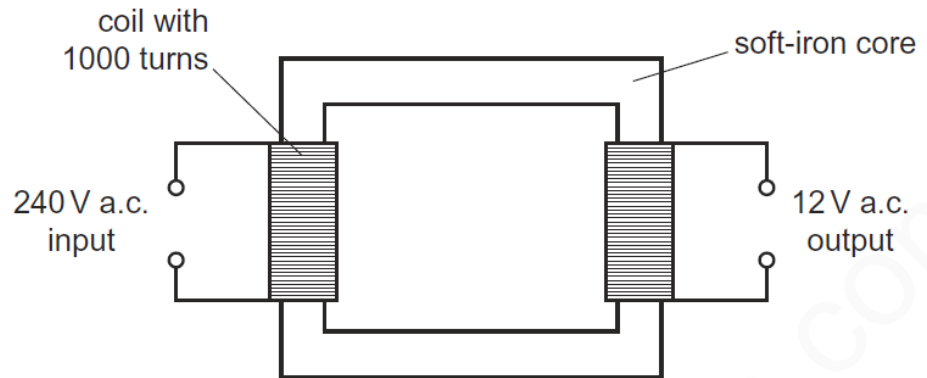
B 200 V

C 400 V

D 800 V

10

The diagram shows a mains transformer that has an output voltage of 12V.



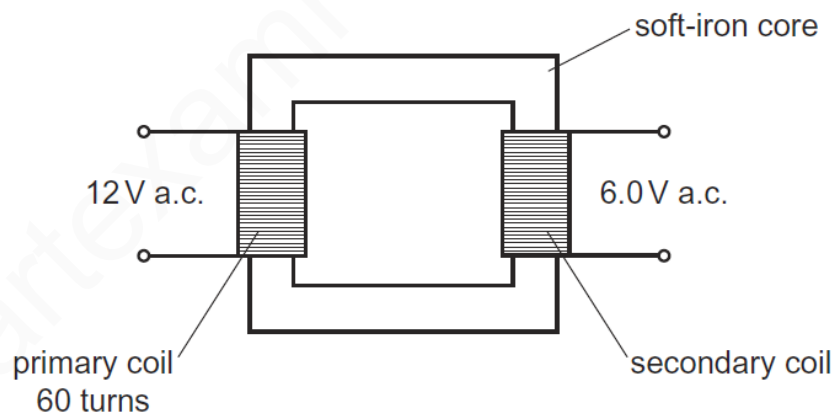
How many turns of wire are in the secondary coil?

- A** 12 **B** 20 **C** 50 **D** 20 000

11

A student wants to make a transformer to step 12V down to 6.0V.

She winds 60 turns of wire around an iron core as shown in the diagram.



How many turns of wire should she wind on the secondary coil of her transformer?

- A** 5 **B** 30 **C** 60 **D** 120