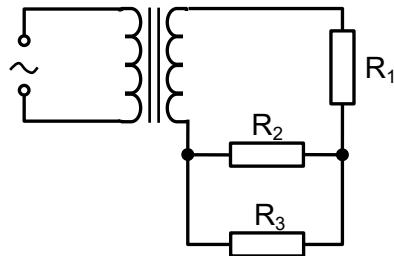


- 25** The secondary coil of a 2:1 step-down transformer is connected to three identical resistors  $R_1$ ,  $R_2$  and  $R_3$  each of resistance  $80\ \Omega$  as shown.



The alternating supply to the primary coil delivers a peak voltage of 180 V.

What is the value of the average power dissipated in  $R_1$ ?

**A** 11 W

**B** 23 W

**C** 45 W

**D** 90 W