

USACO - Water Bowls

We have five huge hemispherical bowls. The radius of each bowl is given to us in binary form. We need to find out how much water we can store in each bowl.

INPUT FORMAT (file water.in)

Each line has a binary number representing radius of a bowl (in cm).

OUTPUT FORMAT (file water.out)

Each line contains the rounded amount of water in liters.

Tip: $1 \text{cm}^3 = 1 \text{mL}$ and volume of hemisphere = $2/3 * PI * \text{radius}^3$ (consider PI = 3.14)

SAMPLE INPUT

10100

10011

10010

11011

11001

SAMPLE OUTPUT

17

14

12

41

33

Explanation

Since 10100 when converted to a decimal number gives 20 cm, we get volume of the bowl 16.74666666 liters. The rounded value is 17 liters. Similar conversions are done for the other four bowls.

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