Problem of the Week
Problem E
A Tale of Two Cities

Two cities, Mytown and Yourtown, had the same population at the end 2015. The population of Mytown decreased by 2.5% from the end of 2015 to the end of 2016. Then, the population increased by 8.4% from the end of 2016 to the end of 2017.

The population of Yourtown increased by \( r \)%, \( r > 0 \), from the end of 2015 to the end of 2016. Then, the population of Yourtown increased by \( (r + 2)\)% from the end of 2016 to the end of 2017.

Surprisingly, the populations of both cities were the same again at the end of 2017. Determine the value of \( r \) correct to one decimal place.