

Problem 1) Three concentric metallic spherical shells of radii  $R$ ,  $2R$ ,  $3R$ , are given charges  $Q_1$ ,  $Q_2$ ,  $Q_3$ , respectively. It is found that the surface charge densities on the outer surfaces of the shells are equal. Then, the ratio of the charges given to the shells,  $Q_1 : Q_2 : Q_3$ , is

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- 1)  $1 : 2 : 3$
- 2)  $1 : 3 : 5$
- 3)  $1 : 4 : 9$
- 4)  $1 : 8 : 18$

Ans) 2