Implement another derived class “Circle_of_Spheres” using the foundation class “Circle” (derived from “Circle” class). A circle of spheres is represented by a figure below:

(1) Each object of “Circle_of_Spheres” has the following attributes:

(a) The number of spheres in the circle (as an unsigned integer)
(b) The weight of each spheres (in “ton” as a fraction (float) number)

Note: the derived class, “Circle_of_Spheres” should inherit “radius” from the foundation class “Circle”.

(2) The derived function, “Circle_of_Spheres” should have the following member functions:

(a) The constructor, which sets up (initializes) ① the number of spheres = 12, ② the unit weight of each sphere = 8.54 (tons) for (each volume unit of a sphere), and ③ the radius of each sphere).

Note: ③ “the radius of each sphere” is a member variable of “Circle”.

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(b) A member function, “total_weight”, which returns the total weight of the circle of spheres.

**Note:** the volume of a sphere is calculated as: \( V = \frac{3}{4} \times \pi \times \text{(radius)}^3 \)