How much graphene do we need to cover the Empire State Building?

Step 1:
Graphene is composed of many hexagons.
How many carbon atoms are there in each hexagon?

The distance between two carbon atoms is 0.14nm. What is the area of each hexagon?

Step 2:
Approximate the Empire state building by a box of height: 381 m; length: 129.2 m; width: 57 m.
What is the total outer surface area (excluding the bottom surface)?

Step 3:
How many carbon atoms do we need to cover the Empire State Building?

Step 4:
How many atoms are there in 12 grams of graphene?

Step 5:
How many grams of graphene do we need to cover the Empire State Building?