Fertilizer Calculations

You have just bought a 30 lb. bag of Green Farmer Organic Fertilizer 5 - 3 - 3.

Q1. How many pounds of nitrogen are in this bag?

Q2. Your soil sample analysis recommends applying 1 pound of actual nitrogen/1000 sq. ft. How many sq. ft. will this bag cover?

Q3. Your garden measures 120 ft. by 60 ft. How many pounds of 5 - 3 - 3 fertilizer do you use to apply 1 lb. of actual nitrogen/1000 sq. ft. as recommended?
You have just bought a 30 lb. bag of Green Farmer Organic Fertilizer 5 - 3 - 3.

Q1. How many pounds of nitrogen are in this bag?

\[ (.05 \text{ N}) (30 \text{ lbs.}) = 1.5 \text{ lbs. Actual nitrogen} \]
Q2. Your soil sample analysis recommends applying 1 pound of actual nitrogen/1000 sq. ft.

How many sq. ft. will this bag cover?

\[
\begin{align*}
1 \text{ lb.} & = 1,000 \text{ sq. ft.} \\
1.5 \text{ lbs.} & \times \text{sq. ft.} = X = 1,500 \text{ sq. ft.}
\end{align*}
\]
Q3. Your garden measures 120 ft. by 60 ft.

How many pounds of 5 - 3 - 3 fertilizer do you use to apply 1 lb. of actual nitrogen/1000 sq. ft. as recommended?

\[(120 \text{ ft.})(60 \text{ ft.}) = 7,200 \text{ sq. ft.}\]

30 lbs. covers 1,500 sq. ft.

\[
7,200 / 1,500 = 4.8 \text{ bags}
\]

At 30 lbs/bag x 4.8 bags = 144 lbs.