

Farmer brown raised 114 goats and then entered into a series business transactions. he traded all the goats for sheep at an exchange rate of 6 goats for 11 sheep. next he exchanged all the sheep for hogs at a rate of 5 sheep for 8 hogs. each hog weighted 295 lbs each. he sold all the hogs at market price of 82\$ per 100 lbs. how much money did he make from his 114 goats?

Solution:

1) Farmer traded goats for sheep:

6 goats correspond 11 sheep

114 goats correspond x sheep

by proportion $x = \frac{114 \times 11}{6} = 209$

then, farmer had 209 sheep after first exchange.

2) Farmer traded sheep for hogs:

5 sheep correspond 8 hogs

209 sheep correspond y hogs

by proportion $y = \frac{209 \times 8}{5} = 334$

then, farmer had 334 hogs after second exchange.

3) Than, total weight of hogs is $334 \times 295 = 98\,530$ lbs, which is equal to $\frac{98\,530 \times 82}{100} = 80\,794.6$ \$

Answer: Farmer makes 80 794.6 \$ from his 114 goats.