Every healthy pig is greedy and every old pig is greedy. On a certain farm some pigs are greedy and some are not. Which of the following assertions are definitely true about the pigs on that farm?

(a) There are both old pigs and young pigs.

(b) All the pigs which are not greedy are young.

(c) Some of the young pigs are sick.

(d) All the sick pigs are young.

Answers

(a) False. They could all be young pigs.

(b) True. See table.

(c) True. See table.

Pigs	Healthy	Sick
Old	*Greedy*	*Greedy*
Young	*Greedy*	*Not greedy*

(d) False. There are certainly some young sick pigs. But there could also be some old sick pigs.

NB This was a Cambridge University Entrance Scholarship question in the 1960s. If you solved it correctly, give yourself honour and kudos!