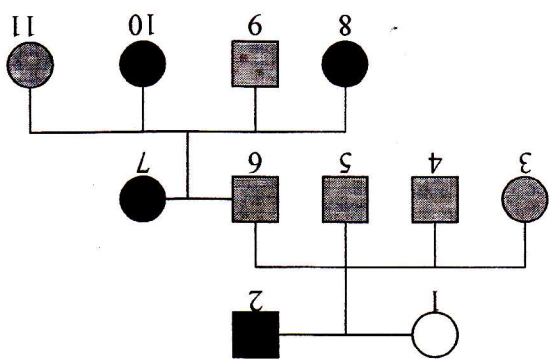
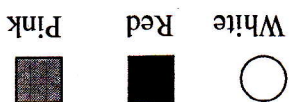


Q2. A white (W) guinea pig is crossed with a red (R) guinea pig. The offspring is born with a hybrid colour-pink (WR).



a) what is the genotype of pig 1? WW

b) what is the genotype of pig 2? RR

c) What is the genotype of pig 3, 4, 5 and 6? RW

d) What is the chance that pigs 1 and 2 could have

i) a white piglet? 0%

ii) a red piglet? 0%

iii) a pink piglet? 100%

e) What is the chance that pigs 6 and 7 could have

i) a red piglet? 50%

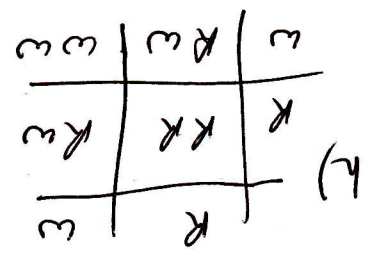
ii) a white piglet? 0%

iii) a pink piglet? 50%

f) How many homozygous pigs are there in this pedigree? 6

g) How many heterozygous pigs are there in this pedigree? 6

h) If pigs 9 and 11 were to mate, determine:
 i) how many genotypes in their offspring, and
 ii) genotypic ratio of the offspring.



i) 3 (RR, RW, ww)

ii) 1 RR : 1 Ww : 2 Rw

Use the space below for working out outcomes using punnet squares.

