Formula used:

= posterior prob of an individual being female

= likelihood of individual being female

= prior probability of individuals being female (set to 0.5 or 0.79 – informed)

= likelihood of individual being male

= prior probability of individuals being male (set to 0.5 or 1-0.79 – informed)

Within the R function, the highlighted bit shows the formula. Maybe there’s a parenthesis in the wrong place?

f\_probs\_informed <- function(params, data, prior\_f = 0.5, chm = 6) {

prior\_m <- 1 - prior\_f

res <- sumsq(params, data, chm)

likes <- exp(-res$likes / (2 \* res$ss / (nrow(res$likes) - 1)))

post\_probs <- (likes[, 1] \* prior\_f) / (likes[, 1]\* prior\_f + likes[,2] \* prior\_m)

return(post\_probs)

}