BUTTERFLY HOUSE

Some children visited the Butterfly House at the Zoo.
They learnt that a butterfly is made up of 4 wings, one body and two feelers.

While they were there, they made models and answered some questions.

For each question, explain your working and your answer, in as much detail as possible.

a. How many wings, bodies and feelers would be needed for 7 model butterflies?

_______________ wings
_______________ bodies
_______________ feelers

b. How many complete model butterflies could you make with 16 wings, 4 bodies and 8 feelers?
c. How many wings, bodies and feelers will be needed to make 98 model butterflies. Show all your working and explain your answer in as much detail as possible.

_______________ wings
_______________ bodies
_______________ feelers

d. How many complete model butterflies could you make with 29 wings, 8 bodies and 13 feelers? Show all your working and explain your answer in as much detail as possible.
e. To feed 2 butterflies the zoo needs 5 drops of nectar per day. How many drops would they need each day for 12 butterflies? **Show all your working and explain your answer in as much detail as possible.**

f. How many butterflies could you feed with 55 drops of nectar per day? **Show all your working and explain your answer in as much detail as possible.**

g. How many butterflies could you feed with 135 drops of nectar per day? **Show all your working and explain your answer in as much detail as possible.**
h. Model butterflies can be made with wings, grey, brown or black bodies and either long or short feelers. How many different model butterflies are possible? **Show all your working and explain your answer in as much detail as possible.**

i. In addition to either grey, brown or black bodies and either long or short feelers, model butterflies can also be made with either all yellow, all blue or all red wings. How many different model butterflies can be made now? **Show all your working and explain your answer in as much detail as possible.**