S2 Bio Genetics Homework 1 Variation DO NOT write on these sheets

Graph paper needed Number \_\_\_\_\_\_

**Investigating Variation in Apples**

A student was studying variation in apples. She recorded some information about some apples chosen at random from her local supermarket.

Her results are shown in the table below

1. Copy and complete the tally chart below to work out the frequency (how many in each category) of colours of apple.

|  |  |
| --- | --- |
| colour of apple | frequency |
| red |  |
| green |  |

1. Plot a suitable graph to show the frequency of different colours of apple. [CLUE: apple colour on x-axis and frequency on y-axis]
2. Draw up a tally chart (one has been started for you below). Work out the frequency of different masses of apples in the sample.

|  |  |
| --- | --- |
| apple mass (g) | frequency |
| 100-109 |  |
| 110-119 |  |
| 120-129 |  |
| etc |  |

1. Plot a suitable graph to show the frequency of different masses in the sample. [CLUE: apple mass on x-axis and frequency on y-axis]
2. What type of variation does each characteristic show? Give an explanation for each answer.

|  |  |  |
| --- | --- | --- |
| **Apple** | **Colour** | **Mass****(g)** |
| 1 | Red | 109 |
| 2 | Red | 111 |
| 3 | Red | 128 |
| 4 | Green | 132 |
| 5 | Green | 145 |
| 6 | Red | 157 |
| 7 | Green | 152 |
| 8 | Green | 140 |
| 9 | Red | 131 |
| 10 | Red | 127 |
| 11 | Red | 116 |
| 12 | Green | 119 |
| 13 | Green | 123 |
| 14 | Green | 138 |
| 15 | Red | 146 |
| 16 | Red | 144 |
| 17 | Green | 133 |
| 18 | Green | 135 |
| 19 | Green | 124 |
| 20 | Red | 124 |
| 21 | Green | 125 |
| 22 | Red | 136 |
| 23 | Green | 134 |
| 24 | Red | 135 |
| 25 | Red | 130 |