# Knox Academy <br> Mathematics Department 

4 Question Challenge on...

## Frequency Tables

Q1 Mollie recorded the number of text messages received on each of 18 days.
Here are her results.
$\begin{array}{lllllll}7 & 9 & 9 & 8 & 9 & 9 & 10\end{array}$
$6 \quad 9$
$9 \quad 7 \quad 10$
9
88
$6 \quad 7$
6

Complete the frequency table to show Mollie's results.

| Number of texts | Tally | Frequency |
| :---: | :---: | :---: |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |
| 9 |  |  |
| 10 |  |  |

Q2 A class of 20 students complete a test.
The test is marked out of 50
The scores are recorded below.

| 34 | 10 | 19 | 41 | 22 | 18 | 28 | 24 | 50 | 48 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 38 | 14 | 23 | 30 | 38 | 27 | 21 | 43 | 25 | 39 |

Complete the score, tally and frequency columns in the chart below.

| Score | Tally | Frequency |
| :---: | :---: | :---: |
| $1-10$ |  |  |
| $11-20$ |  |  |
| $21-$ |  |  |
|  |  |  |
|  |  |  |

Q3 Fill in the speeds of 50 cars in the frequency table below.

| 31 | 53 | 66 | 21 | 43 | 57 | 87 | 22 | 29 | 54 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 47 | 32 | 40 | 55 | 25 | 38 | 16 | 71 | 64 | 61 |
| 52 | 9 | 27 | 29 | 51 | 92 | 49 | 37 | 50 | 29 |
| 62 | 38 | 17 | 22 | 75 | 88 | 67 | 43 | 81 | 44 |
| 13 | 7 | 30 | 46 | 19 | 28 | 84 | 70 | 41 | 56 |


| Speed (mph) | Tally | Frequency |
| :---: | :--- | :--- |
| $1-10$ |  |  |
| $11-20$ |  |  |
| $21-30$ |  |  |
| $31-40$ |  |  |
| $41-50$ |  |  |
| $51-60$ |  |  |
| $61-70$ |  |  |
| $71-80$ |  |  |
| $81-90$ |  |  |
| $91-100$ |  |  |

Q4 Why have we used groups for the frequency tables in Q2 and Q3?

