## Knox Academy

Mathematics Department
4 Question Challenge on...

## Interpreting Tables

Q1 The loan table below shows the monthly repayments for borrowing different amounts from a finance company with and without loan protection.

Answer the questions below from the information in the table.

| Sink Before You Can Swim Loans |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 months |  | 36 months |  | 24 months |  |
|  | with | without | with | without | with | without |
| £20 000 | 492.27 | 476.66 | 633.62 | 601.94 | 889.81 | 845.32 |
| £15000 | 398.70 | 387.76 | 485.20 | 460.21 | 682.36 | 648.24 |
| £10 000 | 279.14 | 265.18 | 346.81 | 329.47 | 494.91 | 470.16 |
| £8000 | 223.00 | 212.50 | 277.50 | 263.00 | 405.50 | 385.50 |

(a) Ally wants to borrow $£ 15000$ and to pay it back over 24 months with loan protection.
How much would he have to pay back each month?
(b) How much would he save per month if he took the loan without loan protection?
(c) Stuart borrowed $£ 10000$ and wanted to pay it back over 36 months without loan protection.

What is the amount he would have to pay per month?
(d) Gordon is paying back $£ 263$ per month without loan protection.

How much did he borrow, how long will it take him to pay the loan back and did he take it with or without loan protection?

Q2 Maria decides to apply for a credit card and compares some of those available.

| Credit Card | Annual Fee | APR | Monthly rate | Minimum <br> Payment |
| :--- | :---: | :---: | :---: | :---: |
| Vista | $£ 12$ | $21 \cdot 1 \%$ | $1 \cdot 61 \%$ | $£ 5$ or $5 \%$ |
| Silvercarp | none | $19 \cdot 8 \%$ | $1 \cdot 52 \%$ | $£ 4$ or $4 \%$ |
| Canadian Express | $£ 15$ | $28 \cdot 8 \%$ | $2 \cdot 13 \%$ | $£ 5$ or $5 \%$ |
| National Direct | $£ 10$ | $18 \cdot 6 \%$ | $1 \cdot 43 \%$ | $£ 5$ or $5 \%$ |

(which ever is greater)
(a) How much is the annual fee for Canadian Express?
(b) What is the APR for National Direct?
(c) What is the monthly rate of interest for Vista?
(d) What is the minimum payment for Silvercarp?
(e) If Maria spent $£ 150$, how much would her minimum payment be with Vista?

Q3 The table below shows the cost of a touring holiday to USA with a stay in either Scottsdale or Las Vegas. Prices are per person.

|  | Dates |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Days | Apr 15 | Apr 22 | May 20 <br> Jun 3 | Jun 10 | Sep 2, <br> 9,23 | Sep <br> 30 | Oct 14 |
| Tour + <br> Scottsdale | 16 | 1965 | 2035 | 1999 | 2059 | 2069 | 2115 | 2039 |
| Tour + Las <br> Vegas | 17 | 2125 | 2189 | 2159 | 2219 | 2229 | 2269 | 2195 |

(a) How many days does the Tour and Scottsdale holiday last?
(b) How much would it cost for these holidays?
(i) Tour + Las Vegas leaving on June $10^{\text {th }}$ for 2 adults.
(ii) Tour + Scottsdale leaving on April $22^{\text {nd }}$ for 4 adults.

Q4 This table shows the cost of a holiday to Dubrovnik. Prices are per person.

|  |  | Dates |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Days | Feb 7 | Mar 7 | Apr 4 | May 2 | Jun 6 | Jul 4 | Aug 1 |  |  |
| Hotel <br> Imperial | 3 | 386 | 386 | 618 | 699 | 843 | 743 | 775 |  |  |
|  | 7 | 574 | 574 | 062 | 1123 | 1327 | 1279 | 1311 |  |  |
|  | 10 | 715 | 715 | 1220 | 1441 | 1690 | 1681 | 1713 |  |  |
|  | 14 | 903 | 903 | 1564 | 1865 | 2174 | 2217 | 2249 |  |  |
| Hotel <br> Excelsior | 3 | 392 | 392 | 603 | 621 | 765 | 632 | 703 |  |  |
|  | 7 | 588 | 588 | 927 | 941 | 1145 | 1059 | 1143 |  |  |
|  | 10 | 735 | 735 | 1170 | 1181 | 1430 | 1389 | 1473 |  |  |
|  | 14 | 931 | 931 | 1494 | 1546 | 1810 | 1829 | 1913 |  |  |

Calculate the cost of these holidays
(a) 14 nights in the Hotel Imperial for 2 adults leaving on June $6^{\text {th }}$.
(b) 10 nights in Hotel Excelsior for 2 adults leaving on August $1^{\text {st }}$.
(c) 3 nights for 2 adults and 1 child in the Hotel Imperial leaving on April $4^{\text {th }}$.

