## Reasoning with pattern and sequences: Number sequence.

Independent Task

Mr Critchlow

To Start Times table speed challenge

|  | 4 | 8 | 3 | 2 | 5 | 6 | 9 | 10 | 7 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4 |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |



## Moving on

Can you remember the Roman Numerals for these numbers?

| Arabic <br> Numeral | Roman <br> Numeral | Arabic <br> Numeral | Roman <br> Numeral |
| :---: | :---: | :---: | :---: |
| 100 |  | 25 |  |
| 54 |  | 36 |  |
| 48 |  | 13 |  |


| I | II | III | IV | V | VI | VII | VIII | IX | X |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XI | XII | XIII | XIV | XV | XVI | XVII | XVIII | XIX | XX |
| XXI | XXII | XXIII | XXIV | xxv | XXVI | XXVII | XXVIII | XXIX | XXX |
| XXXI | XXXII | XXXIII | XxxIV | xxxv | XXXVI | XXXVII | XXXVIII | XXXIX | XL |
| XLI | XLII | XLIII | XLIV | xLV | XLVI | XLVII | XLVIII | XLIX | L |
| LI | LII | LIII | LIV | LV | LVI | LVII | LVIII | LIX | LX |
| LXI | LXII | LXIII | LXIV | LXV | LXVI | LXVII | LXVIII | LXIX | LXX |
| LXXI | LXXII | LXXIII | LXXIV | LXXV | LXXVI | LXXVII | LXXVIII | LXXIX | LXXX |
| LXXXI | LXXXII | LXXXIII | LXXXIV | LXXXV | LXXXVI | LXXXVII | LxxxviII | LXXXVVIX | XC |
| XCI | XCII | XCIII | XCIV | XCV | XCVI | XCVII | XCVIII | XCIX | C |

## Main Task

Can you work out the rule for each of these sequences and fill in the missing terms?
a) $86,92,98$, $\qquad$ , $\qquad$ ,
b) $7.7,7.5,7.3$, $\qquad$ , $\qquad$ ,
C) $-2,-4$ $\qquad$ , -8, $\qquad$
$\qquad$ , $\qquad$ $, 0.3,0.1$
f) -6 , $\qquad$ , $-2,0$, $\qquad$ , $\qquad$ ,
g) 374,365 , $\qquad$ , $\qquad$ 338
h) 3,1 , $\qquad$ , $\qquad$ ,-5
i) __, 18, $\qquad$ 24

## Main Task

You can see different coloured numbers. They form 5 different sequences. Can you arrange them into increasing sequences?

| 36 | -6 | 5.2 | 69 | 76 |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 5.4 | 12 | 62 | -8 |
| 6 | 41 | 46 | -2 | 5.6 |
| 15 | 5 | 0 | 48 | 66 |
| 56 | 55 | 4.8 | -4 | 9 |



