**2020 revision and consolidation: Roman numerals and Rounding**

**Q1.**

Here is a number written in Roman numerals.

CXV

Write the number in figures.

 

1 mark

**Q2.**

Complete the table.

|  |  |  |
| --- | --- | --- |
|   | **Number** | **Roman Numerals** |
|   | LX | 60 |
|   | LXXVI |   |
|   | XCIII |   |

2 marks

**Q3.**

Look at these numbers written in Roman numerals.

MCMVII       MMCD       MDCCXLIII     MMDX

Circle the **largest** number.

What is the value of the **smallest** number?



2 marks

**Q4.**

Here are four digit cards.



Use each digit card **once** to make the decimal number **nearest to 20**

****

**1 mark**

**Q5.**

Here are three supermarket bills.



Tom rounds each bill **to the nearest £10** and then adds them up.

What is the total amount that Tom gets?



1 mark

Mary adds up the three bills **exactly**.

What is the total difference between her total and Tom’s total?



2 marks

**Q6.**

Look at these numbers written in Roman numerals.

One is not written correctly.

Put a cross (✘) on it.

MMCM       MCMM       MMMC       MMCC      MCCC

1 mark

**Q7.**

The **difference** between two numbers is 2

When each number is rounded to the nearest hundred, the difference between them is 100

Write what the two numbers could be.



1 mark

**Q8.**

Round **124,531**

|  |  |  |
| --- | --- | --- |
|   | to the nearest 10,000 |   |
|   | to the nearest 1,000 |   |
|   | to the nearest 100 |   |

2 marks

**Q9.**

Chen chooses a **prime** number.

He multiplies it by 10 and then rounds it to the nearest hundred.

His answer is **400**.

Write **all** the possible prime numbers Chen could have chosen.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2 marks

**Q10.**

Runa and Jon each start with the same number.

Runa rounds the number to the nearest hundred.

Jon rounds the number to the nearest ten.

Runa’s answer is double Jon’s answer.

Explain how this can be.



1 mark

**M1.**115

**Commentary:** The 2014 national curriculum specifies that pupils should read Roman numerals to 100 (4N3a) and then to 1000 (5N3a).

**[1]**

**M2.**

|  |  |  |
| --- | --- | --- |
| **Number** | **Roman Numerals** |  |
| LX | 60 |   |
| LXXVI | 76 | **1** |
| XCIII | 93 | **1** |

**[2]**

**M3.**MMDX indicated

*Do not accept MDCCXLIII*

**1**

1743

**1**

**[2]**

**M4.**          19.42

**[1]**

**M5.**          (a)     £200

**1**

(b)     Award **TWO** marks for the correct answer of 37p **OR** £0.37

**OR**

for finding the correct difference between £199.63 and the answer given for 13a

*Answer to (a) must be a multiple of £10 for the award of* ***TWO*** *follow-through marks.*

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg

74.68 + 65.90 + 59.05 = 199.63

200 – 199.63

**OR**

          for evidence of an appropriate method to find the correct difference between £199.63 and the answer given for (a).

*Answer need not be obtained for the award of* ***ONE*** *mark.*

*Accept for* ***ONE*** *mark £37p* ***OR*** *0.37p* ***OR*** *£37 as evidence of appropriate method.*

**Up to 2**

**[3]**

**M6.**

*Accept other clear indication*

**[1]**

**M7.**          Two numbers with a difference of 2, in the range 48 **inclusive** to 52 **exclusive** eg:

■        48 **AND** 50

**OR**

■        51.9 **AND** 49.9

**OR**

any pair of numbers that differ from those above by a multiple of 100 and have a difference of 2, eg:

■        149 **AND** 151

**OR**

■        648 **AND** 650

*Numbers can be given in either order.*

**U1**

**[1]**

**M8.**Award **TWO** marks for all three numbers correctly rounded:

120,000

125,000

124,500

If the answer is incorrect, award **ONE** mark for any two numbers correctly rounded.

**Up to 2**

**[2]**

**M9.**Gives only the three correct prime numbers in any order, ie:

•        37, 41, 43

**2**

***or***

Gives at least two correct prime numbers **and**not more than one incorrect number, eg:

•        37, 39, 41, 43

•        39, 41, 43

•        41, 43

**1**

**[2]**

**M10.**         Gives a correct explanation with a number *x* such that 50 ≤ *x* *x* as an example, eg:

•        53 to the nearest hundred is 100, and to the nearest ten is 50 and 2 × 50 = 100

•        If it’s 50 or more but less than 55 it will round to 100 (nearest hundred) and 50          (nearest ten) and 100 is double 50

•        0 is 0 to the nearest 100 and 0 to the nearest 10 and twice 0 is 0

*Accept minimally acceptable explanation, eg:*

*•        51 rounds to 50 and 100*

*•        54  50 and 54  100*

*•        50 rounds to 100*

*•        0 rounds to 0*

***Do not accept*** *incomplete or incorrect explanation, eg:*

*•        They used 51*

*•        50 × 2 = 100*

*•        They could use between 50 and 55, which round to 100*

**U1**

**[1]**