Bronze

1a. XIV; XVI; XIX
2a. A = VIII; B = XX
3a. XX; IX
4a. False. XII
5a. =

1b. XII and XIV
XIV and XVI
X and XII
2b. Various answers, for example:
X + V = XV; IX + V = XIV
3b. No because If you had: XII(12) – V(5) = 7 or X(10) – IV(4) = IX(9)

Silver

6a. XCVIII; LXXX; LV
7a. A = L; B = XXXIX
8a. LXXII; XCIV
9a. False. LVIII
10a. >

4b. III and XC
LXIX and XXIV
5b. Various answers, for example:
XCVII – XXIX = LXVIII; XLIII + XXXIV = LXXVII
6b. No because If you had: IX (9) + IX + IX = XXVII (27)

Gold

11a. XXIII; XLIX; XXIX
12a. A = XVI; B= I
13a. I, LXIV, LXXXV; LXII, LXXXIV
14a. True
15a. >

7b. Various answers, for example:
XLI and XXXIV and XCIV
XLI and XXIV and LXXXIV
XXXIV and XXIV and LXXVII
XXXIV and XXXIV and LXXXVII
8b. Various answers, for example:
LXIV + XIII + XIX = XCVI; LXXXIX – XXI – XXIX = XXXIX
9b. No because If you had: IV(4) + IX (9) + XL (40) = LIII (53)

Challenge

1. These pieces are part of a hundred square but the numbers are all in Roman numerals. Place the pieces back together and convert the Roman numerals back into numbers.

	LXVI	LXVII	LXVIII	LXIX
LXXV	LXXVI	LXXVII	LXXVIII	LXXIX
LXXXIV	LXXXV	LXXXVI	LXXXVII	LXXXVIII	LXXXIX

XXI	XXII	XXIII	XXIV	XXV
XXXI	XXXII	XXXIII	XXXIV	XXXV
XLI	XLII	XLIII		
	LII	LIII		
		LXIII		

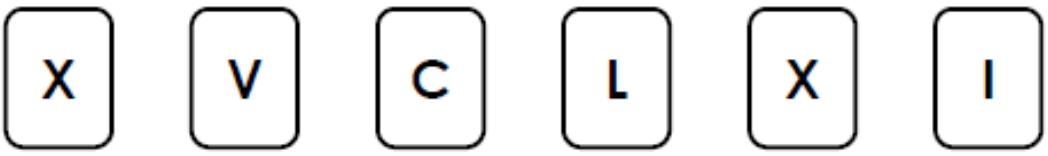
XLIV	XLV	XLVI	XLVII
LIV	LV	LVI	LVII
LXIV	LXV		
LXXIV			

21	22	23	24	25					
31	32	33	34	35					
41	42	43	44	45	46	47			
	52	53	54	55	56	57			
		63	64	65	66	67	68	69	
			74	75	76	77	78	79	
				84	85	86	87	88	89

The pieces when converted and placed correctly should look like the diagram on the right.

DP

2. Two friends are discussing these Roman numerals.



Greg

I think that you can make 25 different numbers because there are 5 different letters altogether.

I think that you can make 30 different numbers because there are 5 different letters on 6 cards.

Roisin

Pupils should provide written evidence of their number combinations. There are 46 possible numbers under 100 using the cards above, therefore Roisin is the most accurate as she was closest to the correct amount of possible numbers.

Investigate whose statement is the most accurate and prove it!