

Roman Numerals

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Warm Up

Peter, Richard and Sam are collecting coins.

- Richard has 2 more coins than Peter.
- Sam has 12 more coins than Peter and Richard have together.

Sam wants to give some coins to the other boys so that in the end each of them has the same number of coins.

How many coins should Sam give to Richard?

How many coins should Sam give to Peter?

Roman Numerals

1. Make the Roman numerals representing the numbers from 1 through 10 using craft sticks. Show your work to your teacher.
2. Insert the missing Roman numerals:

I, II, III , V, VI , , IX, X

3. Which Roman numerals look like English letters?
4. Someone made a mistake when writing these Roman numerals. Can you rewrite them correctly?

• IIII →

• VIIIII →

• IIIX →

• VX →

Addition and Subtraction

Some addition and subtraction problems are easy to solve with Roman numerals. For example,

- $V+I=$

- $V+III=$

- $III-I =$

- $VII-I =$

- $VIII-II=$

- $IX+I=$

Other problems are more complicated:

- $\text{III} + \text{II} =$

- $\text{V} + \text{V} =$

- $\text{IV} + \text{IV} =$

- $\text{IV} + \text{V} =$

- $\text{VI} - \text{II} =$

- $\text{VII} - \text{IV} =$

- $\text{VI} - \text{II} =$

- $\text{X} - \text{VI} =$

Move a stick

These Roman numerals are made out of craft sticks. Someone solved all the addition problems, but made many mistakes.

Can you move one stick to correct each problem? There may be more than one way to correct the problems. The first example is done for you in two different ways.

Example:

$$\text{II} + \text{II} = \text{VI} \implies \text{II} + \text{II} = \text{IV}$$

$$\text{II} + \text{II} = \text{VI} \implies \text{II} + \text{III} = \text{V}$$

Problems to solve:

1. $\text{VI} + \text{II} = \text{VI}$

2. $\text{IV} + \text{IV} = \text{X}$

3. $\text{IX} - \text{V} = \text{VI}$

Bigger Roman Numerals

Insert the missing Roman numerals:

X, XI, , , , XV, , , , IX, XX

Someone made many mistakes when writing these Roman numerals. Can you rewrite them correctly?

• XIII =

• XVI =

• XII =

• XVII =

• VXX =

Solve these addition and subtraction problems:

• $XV + II =$

• $XX - I =$

• $XVI - II =$

• $IX + VI =$

• $XVII - V =$

• $XVII - XII =$

Move a stick again

1. $XIX - IX = VIII$

2. $XI + IV = XIII$

3. $IV + VI = XII$

4. $XX-IV = XIV$

5. $XIX - VI = XV$

More Roman Numerals

Figure out what the Roman numeral XXX stands for if

$$X+X+X = XXX$$

Write down your answer:

XXX=

Here are more Roman Numerals:

L = 50

C = 100

D = 500

M = 1000

Remember:

- when a large number appears to the left of a

smaller number, use addition.

For example, $LX = L + X$ represents $50 + 10 = 60$.

- when a smaller number appears to the left of a larger number, use subtraction.

For example, $XL = L - X$ represents $50 - 10 = 40$.

Remember: L =50 C = 100 D =500 M =1000

What do the Roman numerals below mean?

CL =

DL =

LD =

DCL =

CCXIV =

DVIII =

MMCC =

MMXVII =

Clocks with Roman Numerals

For centuries, it was very popular to use Roman numerals on fancy clocks and watches. Take a look at the clock below. Can you figure out what time it shows?

Homework

1. Finish as many problems from the list above as you can.
2. What is this number: MDCLXVI
3. Write your birth date using Roman numerals. Example, Clara's birthday is 6/11/2005, which is written in Roman numerals as VI/XI/MMV.

Your turn: write down your birth date

Birth date:

Birth date in Roman numerals:

4. Write down today's date in Roman numerals.
5. Modern XXIII Summer Olympic Games took place in Los Angeles in the year MCMLXXXIV.
 - (a) What was the number of the olympic games?
 - (b) What year was this?
6. Select an interesting date in history or a date which is important for your family and write it down in Roman numerals. What does this date

represent?