



Lesson 6.2: At sea and settlement - math

Answers

Question 1

What do you notice?

Own answer. It could be: if a lower value is written in front of a higher value, you must subtract the lower value from the higher value, but if the higher value is listed first, you must add this to the lower value. It could also be: they are all capital letters (in archival documents lower case letters are also used).

Place the year 1761 in Roman numerals:

Answer: MDCCLXI

And what year it is now in Roman numerals?

Answer: 2014 = MMXIV

Question 2

Answer:

1	I	34	XXXIV
2	II	50	L
4	IV	55	LV
5	V	60	LX
8	VIII	70	LXX
10	X	73	LXXIII
16	XVI	79	LXXIX
12	XII	100	C
15	XV	200	CC
20	XX	300	CCC
21	XXI	400	CD
28	XXVIII	500	D
30	XXX	600	DC

Question 3

Answer:

XII	12	XLVI	46
XVIII	18	LVIII	58
XXVI	26	LXXVII	77
XXIX	29	CIII	103
XLIV	44	CCXV	215

Question 4

Answer:

- clocks
- watches
- math at school
- old buildings
- chapter indications in books
- etc.

Question 5

Which book has the largest surface area?

Answer: a

How many meters of wire is needed for this?

Answer: a

The surface area ism²?

Answer: 16 200 m²

Question 6

How many rectangular sails do you see?

Answer: 5

Are all the sails visible?

Answer: No, because one sail is not being used.

What would be the approximate surface area of the deck?

Answer: approximately 160 m² (exactly: 157,5 m²)

Make an estimate of the surface area of the largest sail.

Answer: answer own interpretation, for instance:

Width: 10 m

Height: 6 m

Surface area: 60 m²

Can you give an estimate of the total surface area of all sails?

Answer: own interpretation, for instance:

$$2 \times 60 \text{ m}^2 + 2 \times 35 \text{ m}^2 + 2 \times 15 \text{ m}^2 = 220 \text{ m}^2$$

(sails are resp. 10 m x 6 m, 7 m x 5 m en 5 m x 3 m)