



Project number: 2018-1-IT02-KA201-048274

QUESTIONNAIRE B2, FOR STUDENTS

1. Core number

Q1.1 Order the following *numbers* from *the smallest to the greatest*:
0.233, 0.3, 0.32, 0.35, 0.208

Q1.2 Write in digits:

- 3 tens 5 cents 0 units 8 tenths 3 hundreds
- 4 cents 7 tens 1 hundreds 9 tenths 0 units
- 3 hundreds 1 thousand 8 units 4
- 0 tens 7 units 0 hundreds 9 thousands
- 9 cents 0 tens 7 hundreds 4 tenths 5 units
- 4 tens 1 units 7 hundreds 3 thousand
- 5 units 3 cents 7 tens 0 tenths 9 hundreds
- 14 tenths, 5 units, 0 tens, 1 hundreds

Q1.3. Find the largest number of each of the following four series of numbers:

1.	a) 6,87	b) 3^2	c) $\frac{1}{2}$	d) 8,51	e) $\frac{5}{2}$
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2.	a) 3,84	b) $\frac{45}{9}$	c) 4,97	d) 1^9	e) 2,01
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3.	a) 14,62	b) 4^2	c) $\frac{24}{2}$	d) 15^1	e) 16,001
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4.	a) 27^0	b) 19,86	c) $\frac{12}{3}$	d) 23,57	e) 3^2
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Q1.4. Perform the following calculations:

$$7524,8 + 462,35 =$$

$$119 - 94,36 =$$

$$2527 \times 3 =$$

$$1140,5 : 21 =$$





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2. Memory (retrieval and processing):

Q2Ar1. Calculate:

$$2^0 = \dots\dots\dots$$

$$(-2) \times (-3) = \dots\dots\dots$$

$$\frac{3}{3^2} = \dots\dots\dots$$

$$\sqrt{0} = \dots\dots\dots$$

$$2+3 \times 4 = \dots\dots\dots$$

Q2Ar2. The denominator of the fraction $\frac{2}{5}$ is

Q2Ar3. Is the colored digit in 238 called “unit”, “ten” or “tenth”?

Q2Ar4. Calculate the values of the following expressions

$$\frac{3}{4} - \frac{2}{3} = \dots$$

$$\frac{3}{4} : \frac{3}{7} = \dots$$

$$\sqrt{25} + 2\sqrt{25} =$$

$$(-12) \times (23) =$$

$$57,8 \times 2,94 =$$

$$\frac{7}{2} \times \frac{18}{21} = \dots$$

$$2^7 \times 2^3 = \dots\dots$$

$$\sqrt{5} \times \sqrt{20} = \dots\dots$$

$$75 : (-25) = \dots\dots$$

$$61,5 : 4,1 =$$

$$5^7 : 5^2 =$$

$$\sqrt{2} : \sqrt{6} =$$





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Q2A11. Solve the following expressions:

$$a \times a =$$

$$a + a =$$

$$2a : a =$$

$$\frac{2a}{a} = \dots$$

$$\sqrt[2]{a^3} = a^{-}$$

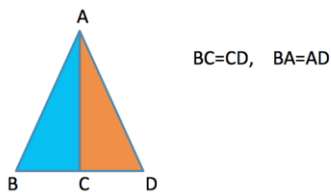
$$a + 2a = \dots$$

$$a \times (b+c) = \dots$$

Q2A12. If $a+2b=5$ and $c=3$, what is the value of $a + 2(b + c)$?

Q2A13. If $x = -3$, what is the value of $-(-x)$?

Q2G1.



Which kind of triangle is CDA?

Which kind of triangle is BDA?

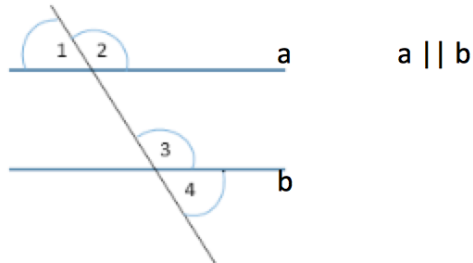
Q2G2. The sum of the interior angles of a triangle is equal to





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Q2G3.



Which sentences are true?

- A. Angles 1 and 4 are equal
- B. Angles 2 and 3 have the sum 180°
- C. Angles 1 and 2 have the sum 180°
- D. Angle 3 is greater than angle 2

3. Reasoning

Q3Ar1. Solve the following problems:

- a) Stella has washed 5 pairs of socks. When she went to take them out of the washing machine one sock was missing. How many socks did Stella take out of the washing machine?
- b) Peter has 40 cards. If Alex loses 10 cards, he will have as many as cards Peter does. How many cards does Alex have?
- c) One family has 3 children. Each child of the family drinks 2 glasses of milk every day. How many glasses of milk will the family drink during 10 days?
- d) To make 4 handbags crocheted in cotton, 6 cotton balls are needed. How many balls do you need to make 20 handbags?
- e) Sara received 24 euros as a gift, Marta received 6 euros less. How many euros have the two girls in total?

Q3Ar2. Represent in algebraic form the following game: "Think of a number, double it, add 4, divide by 2, remove the number you thought"

If you perform the game, you get 2 as a result: why?

Q3Ar3. $\frac{4}{5}$ of the animals on the farm are cows. Express the number of cows as a percentage of the total of animals of the farm.

Q3Ar4. Complete:

$\dots : 2 = 400$, choosing between 200 and 800





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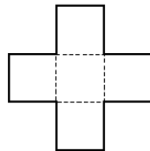
Q3Ar5. Enter the appropriate operation to make the equality true

$$37_5 = 185$$

$$10_8_79 = 1$$

Q3G1.

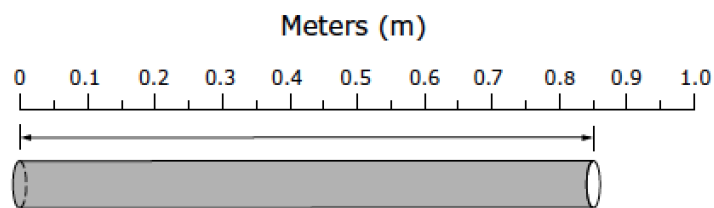
The figure consists of 5 squares of equal area. The area of the whole figure is 245 cm^2 .



A. Find the area of one square.

Answer: _____ cm^2

Q3G2.



What is the length of the pipe being measured?

- (A) 0.085 m
- (B) 0.805 m
- (C) 0.85 m
- (D) 8.5 m

Q3A11. If $a=3$ what is the value of $2a+1$?

Q3A12. If $x=-4$, what is the value of $24/x$?

- A. 6
- B. $1/6$
- C. $-1/6$
- D. -6
- E. 20

Q3A13. If $2 \cdot n$ represents a generic even number, how would you write a generic multiple of 7?

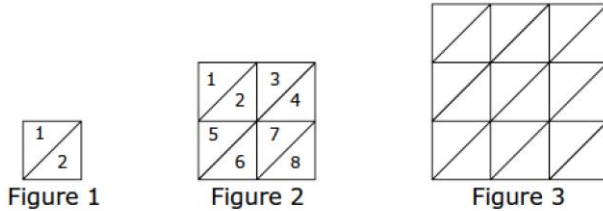




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Q3A14.

The three figures below are divided into small congruent triangles.



A. Complete the table below. First, fill in how many small triangles make up Figure 3. Then, find the number of small triangles that would be needed for the 4th figure if the sequence of figures is extended.

Figure	Number of Small Triangles
1	2
2	8
3	
4	

B. The sequence of figures is extended to the 7th figure. How many small triangles would be needed for Figure 7?

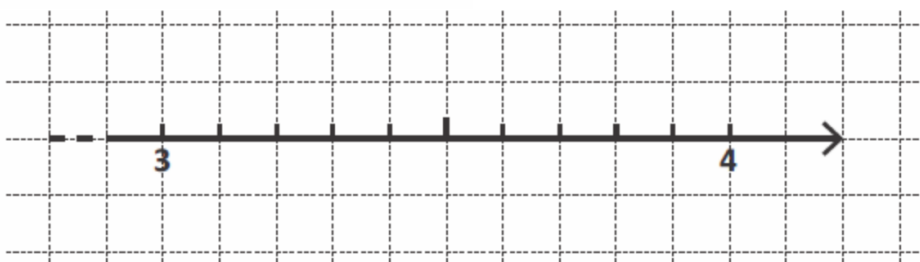
4. Visuo-spatial

Q4Ar1. Which digit would you insert in place of the stain, to make the operation correct?

$$\begin{array}{r} 25 + \\ \text{stain}7 = \\ \hline 62 \end{array}$$

Q4Ar2. Place the following numbers in the correct position on the number line

π ; $\sqrt{16}$; 3,60; $\frac{335}{100}$

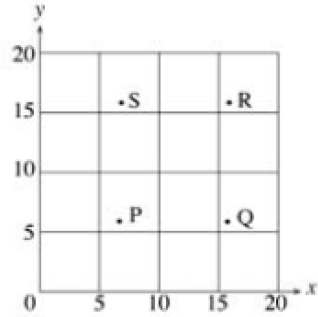




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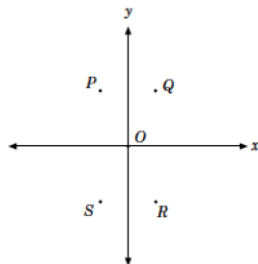
Q4Ar3.

Which point on the graph could have coordinates (7,16)?



- A. Point P
- B. Point Q
- C. Point R
- D. Point S

Q4Ar4.



In the coordinate plane above, which point could have coordinates (2,-4)?

- (A) P
- (B) Q
- (C) R
- (D) S

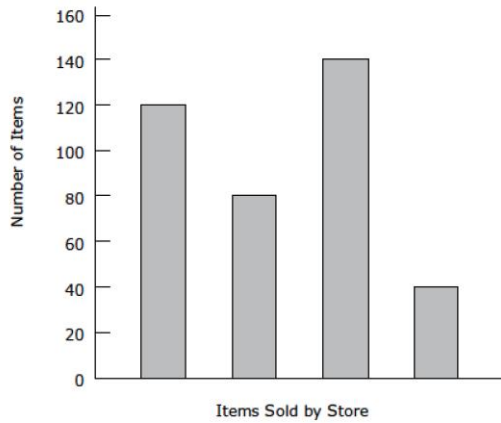




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Q4Ar5.

The graph shows the number of pens, pencils, rulers, and erasers sold by a store in one week.



The names of the items are missing from the graph. Pens were the item most often sold, and fewer erasers than any other item were sold. More pencils than rulers were sold. How many pencils were sold?

- (A) 40
- (B) 80
- (C) 120
- (D) 140

(Item Number: M022189)

Q4Ar6. Calculate the following expression containing fractions:

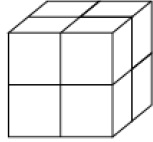
$$\left(\frac{5}{6} \times \frac{3}{4}\right) - \frac{3}{16} =$$



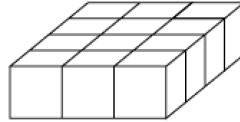
Q4G1.

All the small blocks are the same size. Which stack of blocks has a different volume from the others?

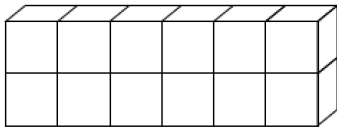
(A)



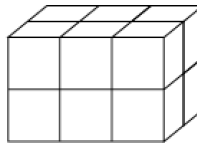
(B)



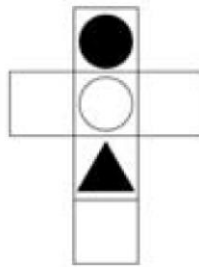
(C)



(D)



Q4G2.



Which of these cubes could be made by folding the figure above?

A.



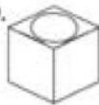
B.



C.



D.



Q4A11. Complete:

$$(a^2)^3 = \dots$$

$$a^{2+3} = \dots$$

Q4A12. Choose the correct expression:

$\sqrt[2]{a^3} = a^{\frac{2}{3}}$

$\sqrt[2]{a^3} = a^{\frac{3}{2}}$



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Q4A13. If $a=10$, then $a^2+3 = \dots$

Q4A14. If $x=2$, complete the following expressions:

$$x^2 = \dots$$

$$2x = \dots$$

$$x^2 = \dots$$



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