

# „Math challenges”

## I Gminny Konkurs Matematyczny w języku angielskim

dla uczniów klas 7 i 8 szkół podstawowych oraz III klasy gimnazjum

### ETAP SZKOLNY

Read the instructions:

1. In the ABCD tasks there is only one correct answer.
2. Write the letter you decide is correct on the answer sheet. If you change your mind circle the wrong answer and write the correct one.
2. In open tasks you have some extra space for explanations and for further actions. Remember that on the answer sheet you write the answer only, not the whole explanation.
3. Remember to rewrite the answers on separate answer sheets. Only the answer sheet is going to be checked by the teacher.
4. You have 60 min for the test.
5. You can use a dictionary if you need to translate the words you don't understand.
6. Good luck!

.....  
*Imię, nazwisko*

.....  
*klasa*

.....  
*szkoła*

## Part I - tasks 1-10 – every task 1 point

1. Put these numbers in order from least to greatest.

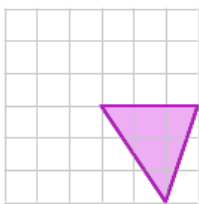
- A.  $\frac{18}{30}$       B. 4      C.  $-\frac{28}{35}$       D.  $-\frac{14}{20}$

- A. CDAB      B. DCAB      C. CDBA      D. DCBA

2. What is the percent of change from 6 to 9?

- A. 50% decrease      B. 50% increase      C. 3% increase      D. 3% decrease

3. Look at this shape:



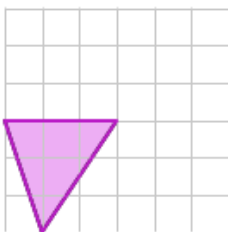
**If:**

A reflection flips the figure over a line to create a mirror image.

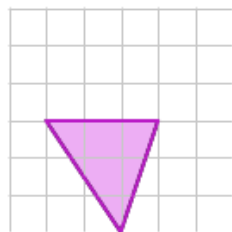
A rotation turns the figure around a point.

A translation slides the figure to a different location.

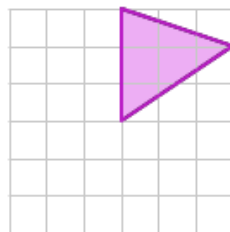
Which image shows a translation?



**A**



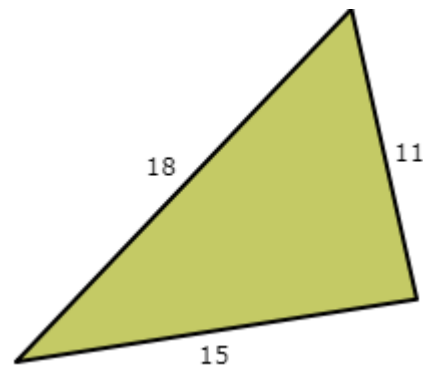
**B**



**C**

4. What is the name of the triangle?

- A. equilateral
- B. isosceles but not equilateral
- C. scalene



5. Megan kept a tally of the number of emails she received each day for a week.

Emails Megan received	
Day	Emails
Tuesday	2
Wednesday	0
Thursday	1
Friday	0
Saturday	9

According to the table, what was the rate of change between Wednesday and Saturday?

**A. 3   B. 8   C. 2,5   D. 6** emails per Day.

6. Look at this figure:



What is the shape of its base?

A.

triangle

B.

square

C.

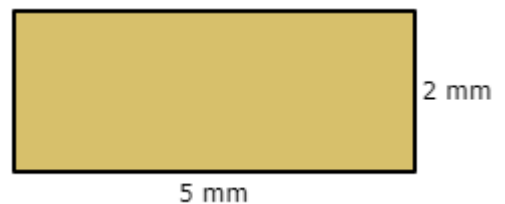
rectangle

D.

circle

7. Look at this rectangle:

If the base is doubled, then which of the following statements about its area will be true?



A.

The new area will be 3 times the old area.

B.

The new area will be 2 times the old area.

C.

The new area will be 4 times the old area.

D.

The new area will be  $\frac{1}{2}$  of the old area.



- 13.** Gary bought a frying pan priced at \$34.85. Shipping and handling cost an additional 20% of the price. What was the total cost of the frying pan, including shipping and handling? (2 pkt)

- 14.** A rectangular prism is 12 meters long and 2 meters high. Its surface area is 300 square meters. What is the width of the rectangular prism? (3 pkt)

- 15.** Acery's living room is 9 meters wide and 7.5 meters long. She wants to put a border around the top of the room. The cost of the border is \$ 1.30 per meter. How much will it cost to buy enough of the border to go around the room? (3pkt)

- 16.** Estimate the amount of the tip by rounding the bill to the nearest dollar before calculating. 20% tip on a bill of \$96.75 (2 pkt)

The amount of the tip is approximately \$ .....

.....  
Imię, nazwisko

### Answer sheet

Task number	<b>Your answer</b> <i>In tasks 1-10 choose A,B,C or D</i> <b>student</b>	<b>Points</b> <b>(for the teacher)</b>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
In tasks 11 – 16 write what you had calculated, the numbers and units		
11.		
12.		
13.		
14.		
15.		
16.		
SUM OF ALL POINTS:		