Problem 1. Calculate $1 - 2 + 3 - 4 + 5 - 6 + 7 - \cdots + 19 - 20$

Problem 2. Calculate $(-5) \times (-4) \times (-3) + (-4) \times (-3) \times (-2) + (-3) \times (-2) \times (-1)$

Problem 3. Calculate $(1 - 9) \times (2 - 8) \times (3 - 7) \times \ldots \times (8 - 2) \times (9 - 1)$

Problem 4. By how much is the sum of negative integers greater than (-10) smaller than the sum of all natural numbers smaller than 10?

Problem 5. Find the greatest three-digit number $\overline{xyz}$ that has different even digits and where

$$x < y; \; y > z; \; z < 7.$$

Problem 6. The number 111...111, which is written using 21 ones, is divided by 3. How many digits 3 are there in the quotient?

Problem 7. If A(2; 2), B(1; 3), C (4,1), find the area of $\triangle ABC$

Problem 8. A rectangle that can be divided into three identical squares has an area of 363 cm2 . How many cm is the perimeter of this rectangle?

Problem 9. The average of 9 numbers is –11 , and the average of 7 of them is –3. Find the average of the other 2 numbers.

Problem 10. A square with a side length of 3 cm and a triangle have equal perimeters and a common side. Find the length of the largest side of the triangle if it is measured in integer centimeters. Hint: Each side of the triangle is smaller than the sum of the other two sides.