The National Orthodox School Shmaisani

Subject: Mathematics

Second Exam Second Semester / Remedial Plan

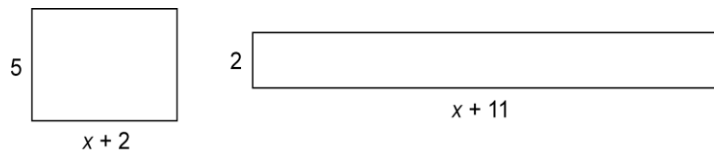**Name:**   **Grade-Section**: 8 CS

Date: **Teacher**: Zain Hattar

Objective: Revise constructing expressions, changing the subject of a formula, constructing and solving linear equations, solving equations with the unknown in the denominator.
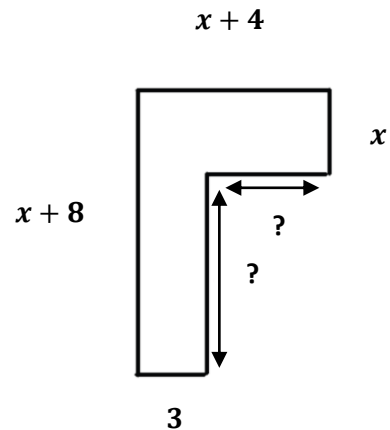
Question 1

These two rectangles have the same area. Find the value of x by constructing and solving an equation. Show your work.

Question 2

Find an expression for the perimeter of the following shape.

Simplify your expression!

Question 3

Make x the subject of these formulae. Show your work.

a) $y = 7 - x$

b) $y = \dfrac{5x}{9} - 1$

c) $y = \dfrac{x+w}{4}$

d) $y = \sqrt{8xm}$

Question 4

Solve the following equations. Show your work.

- $\dfrac{x}{8} - 9 = -1$

- $20(y - 5) = 200$

- $19x - 10 = 13x + 14$

- $\dfrac{5}{y-5} = \dfrac{2}{3}$

- $15 + 3(5x - 1) = 9x$

Question 5

Laith thinks of a number, n. He subtracts 1 then divides the result by 3. The answer is the same as 2 times the number take away 2.

    a) Write an equation to show this information.

    b) Solve your equation to find what number is Laith thinking of?

Question 6

The sum of three consecutive even numbers is 84.

Let x be the first number.

    a) Write an equation to show this information.

    b) Solve your equation.

    c) Find all of the numbers.

Thank you!