1. Solve the following system of equations using substitution:

$$\begin{cases} x + 3y = 11 \\ 10x + 20y = 90 \end{cases}$$

2. Write the following as mathematical expression. If this expression is an equation, solve it.

    a. Half of the number b is equal to 1.5

    b. Product of the numbers of 5 and x is less than 12.

    c. Difference between three times z and 4 is equal to 12.

3. The sum of three consecutive odd numbers is 135. What is the smallest of the three numbers?

4. Calculate:

$$\frac{5^{10} - 5^9}{5^8} =$$

$$15 - (\, 16 \times (-2)^{-3}\,) =$$

$$\frac{3^8 \cdot 8^{11} \cdot 12^2}{27^3 \cdot 16^8} =$$

5. A boy walks at a speed of 4 kmph. How much time does he take to walk a distance of 20 km?

6. *A cyclist covers a distance of 15 miles in 2 hours. Calculate his speed.*