1. Set $A = \{a, h, k, 4, 7, 9\}$, set $B = \{4, a, 9, l, p, 7\}$

   Write the set $C = A \cap B$, and the set $D = A \cup B$

   Show on Venn's Diagram

2. Find x, y and z, which satisfy all three relations below?

   $x + x = 8$
   $x - y = 1$
   $y + y = z$

3. On a straight line 4 points are marked. Point C is located between points A and B. Point D is located between points C and B. Which segment is shorter:
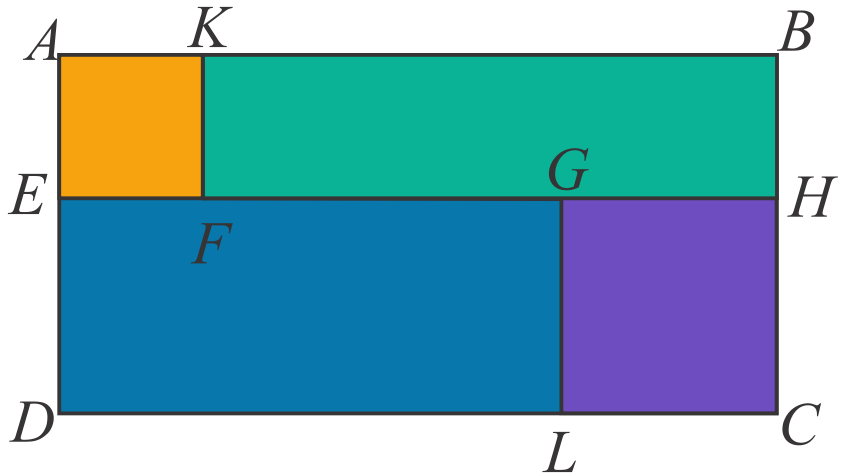
   a. AB or CD
   b. AD or AC
   c. CD or CB?

4. Simplify expressions:

a.   x + 5 - 2x - 7 + 6x + 24 -15=

b. 3y - 5x - 8 + 23 + 45x - 6y + 7x + 23y +99=

5. Find the area of the rectangle ABCD, if area of square AKFE is 4cm², area of the square LGHC is 9cm², points E, F, G, H are on the same straight line, length of the segment FG is 5cm.

6. S16 is a set of multiples of 16 less than 100. S12 is a set of multiples of 12 less than 100.Write a definition for each of these sets using curly brackets {}; Draw Venn diagram for S12 and S16.

7.   Make an auxiliary **drawing** to construct an **equation** needed to solve a word problem:

Four friends, Pichu, Pikachu, Tepig, and Oshawott went trick or treating. Oshawott collected 50 more candies than Pichu, Pikachu 50 less, and Tepig got 2 times more candies than Pichu. When they got together and put all candies in one jar, the number was 250.

How many candies each one collected?

Cut each square on a picture below (trace with colored pencils instead of cutting) into 4 equal parts so that each part gets one "X".

	X	X	
	X	X	

X			
	X		
		X	
			X

			X
X	X	X	

8. Even or odd number will be the sum and the product of the following? Explain why.

a. 2 odd numbers

b. 2 even numbers

c. 1 even and 1 odd number

d. 1 odd and 1 even number

9. Two circles touch at a single point (tangent circles). The radius of the first circle is 10 cm, the radius of the second circle is 6 cm. What is the distance between the centers of these circles?