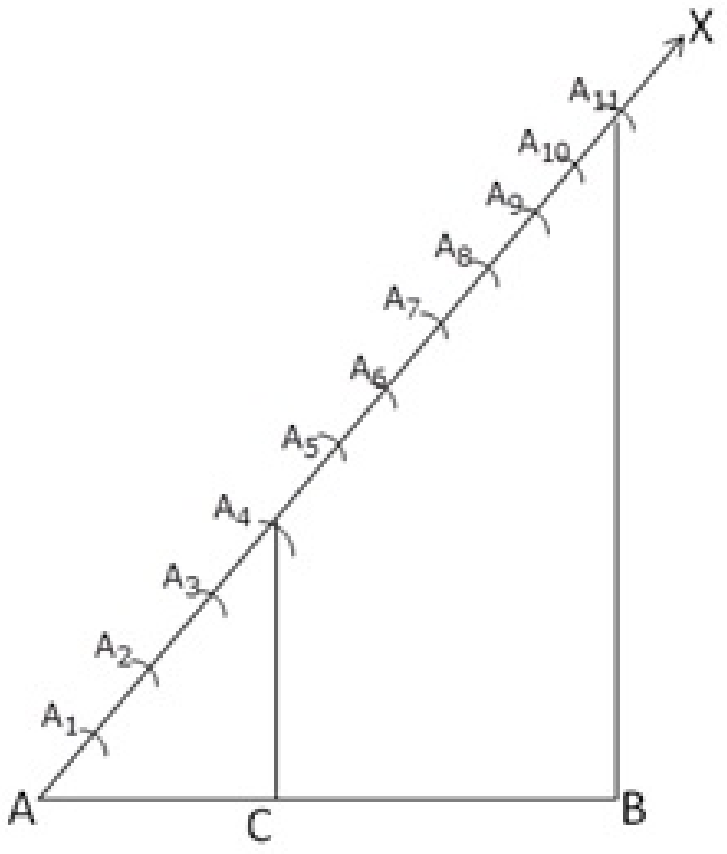
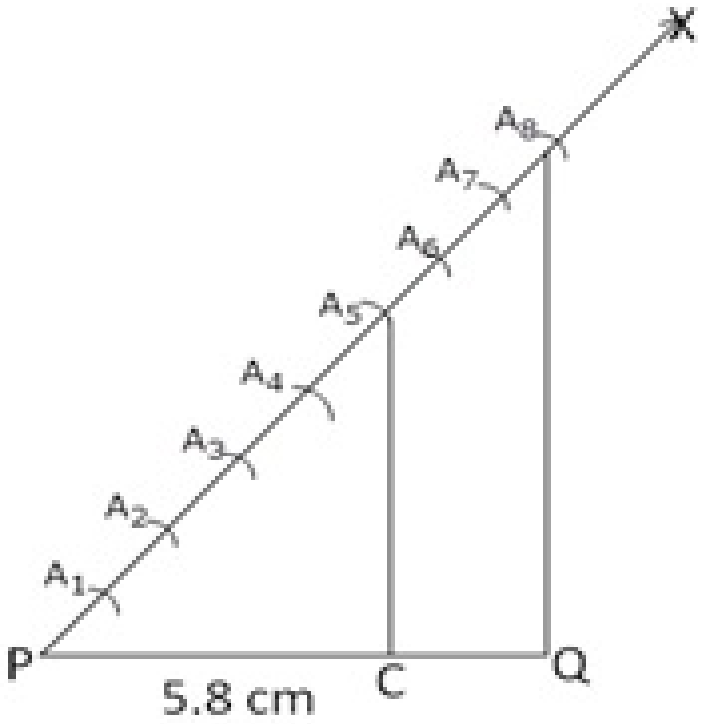
Exercise 13A

Question 1:




Steps of construction:
Step 1 : Draw a line segment AB = 6.5 cm
Step 2: Draw a ray AX making ∠ BAX.
Step 3: Along AX mark (4+7) = 11 points
$A_1$, $A_2$, $A_3$, $A_4$, $A_5$, $A_6$, $A_7$, $A_8$, $A_9$, $A_{10}$, $A_{11}$, such that
$AA_1 = A_1A_2$
Step 4: Join $A_{11}$ and B.
Step 5: Through $A_4$ draw a line parallel to $A_{11}$ B meeting AB at C.
Therefore, C is the point on AB, which divides AB in the ratio 4 : 7
On measuring,
AC = 2.4 cm
CB = 4.1 cm

Question 2:




Steps of Construction:
Step 1 : Draw a line segment PQ = 5.8 cm
Step 2: Draw a ray PX making an acute angle QPX.
Step 3: Along PX mark (5 + 3) = 8 points
$A_1$, $A_2$, $A_3$, $A_4$, $A_5$, $A_6$, $A_7$ and $A_8$ such that
$PA_1 = A_1A_2 = A_2A_3 = A_3A_4 = A_4A_5 = A_5A6 = A_6A7 = A_7A_8$
Step 4: Join $A_8Q$.
Step 5: From $A_5$ draw $A_5C \parallel A_8Q$ meeting PQ at C.
C is the point on PQ, which divides PQ in the ratio 5 : 3
On measurement,
PC = 3.6 cm, CQ = 2.2 cm

********** END **********