ANGLES
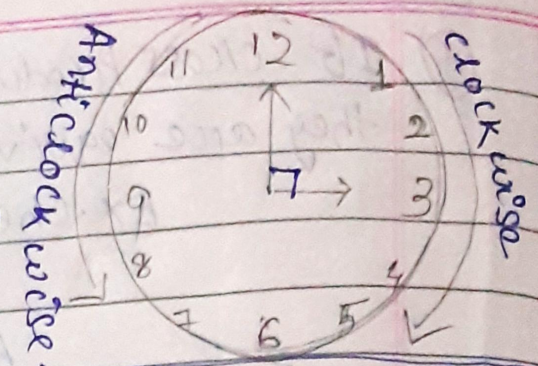
When the hand of a clock moves from one position to another, it turns through an angle. We know two rays with common end point form an angle.


Rotation of the Ray	Name of Revolution	Degree of Angle formed	Name of Angle	Number of steps moved
1. $\frac{1}{4}$ of a revolution	Quarter revolution	$90°(1 \times 90°)$	Right angle	3
2. $\frac{1}{2}$ of a revolution	Half revolution	$180°(2 \times 90°)$	Straight angle	6
3. $\frac{3}{4}$ of a revolution	Three fourth revolution	$270°(3 \times 90°)$	Reflex angle	9
4. 1 revolution	Complete revolution	$360°(4 \times 90°)$	Complete angle	12

EX - 5·2

Ans 1.
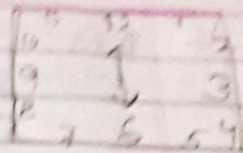
a) The hour hand when goes from 3 to 9, make the angle $180°$
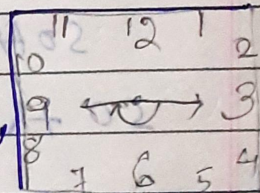
Required fraction of the clockwise revolution

$$= \frac{180°}{360°} = \frac{1}{2}$$

Hence, $\frac{1}{2}$ of a revolution is formed.

* Do all bits of number 1.

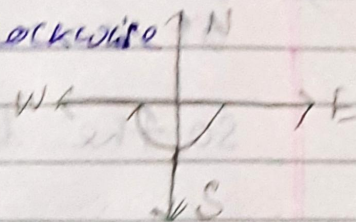② Ans. The hour hand starts at 12,
It makes ½ revolution clockwise
So it makes 180°
Hence, The hour hand stops at 6.

⊙ Do all the bits of number 2.

3. Ans. We start facing east.
We will make ½ of a revolution clockwise

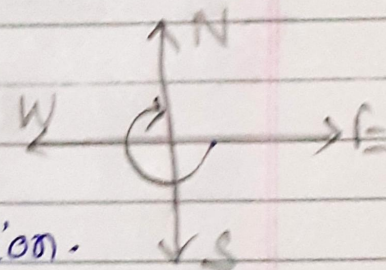$\frac{1}{2}$ of a revolution $= \frac{1}{2} \times 360° = 180°$
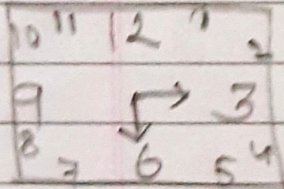
So we will face west.

⊙ Do all the bits of number -3.

4 Ans. I stand facing east
I turn clockwise to face north
I form an angle of 270° $= \frac{3}{4}$ of a revolution.

Hence, I turned 3 of a revolution.
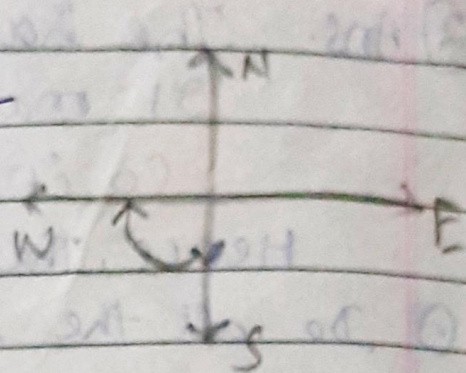
⊙ Do all the given bits of number 4

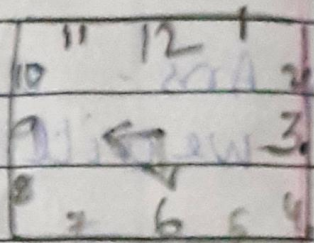5. Ans. When hour hand goes from 3 to 6
It cover 90° or one right angle.

⊙ Similarly complete all the given bits of number 5

6 Ans- I start facing south
I turn clockwise to west
so I cover 90° or one
right angle.

⊙ Do all given bits

7) Hour hand starts from 6
It turns through 1 right angle
so the hour hand stops at 9.

⊙ Complete the exercise 5.2 in the copy.