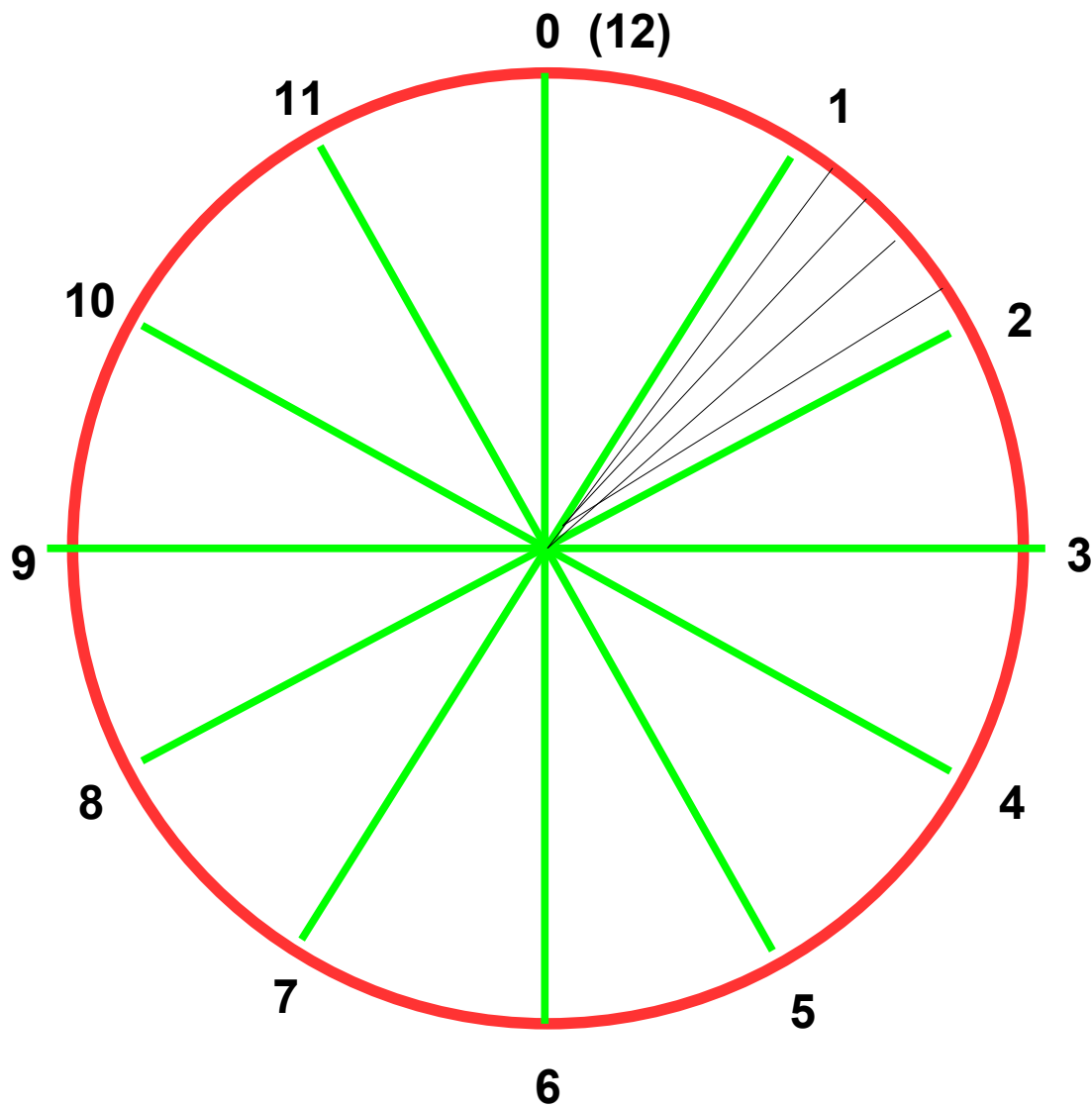


The 12 numbers on the face of the clock divide it into 12 sectors.

Each sector corresponds to an angle of 30°

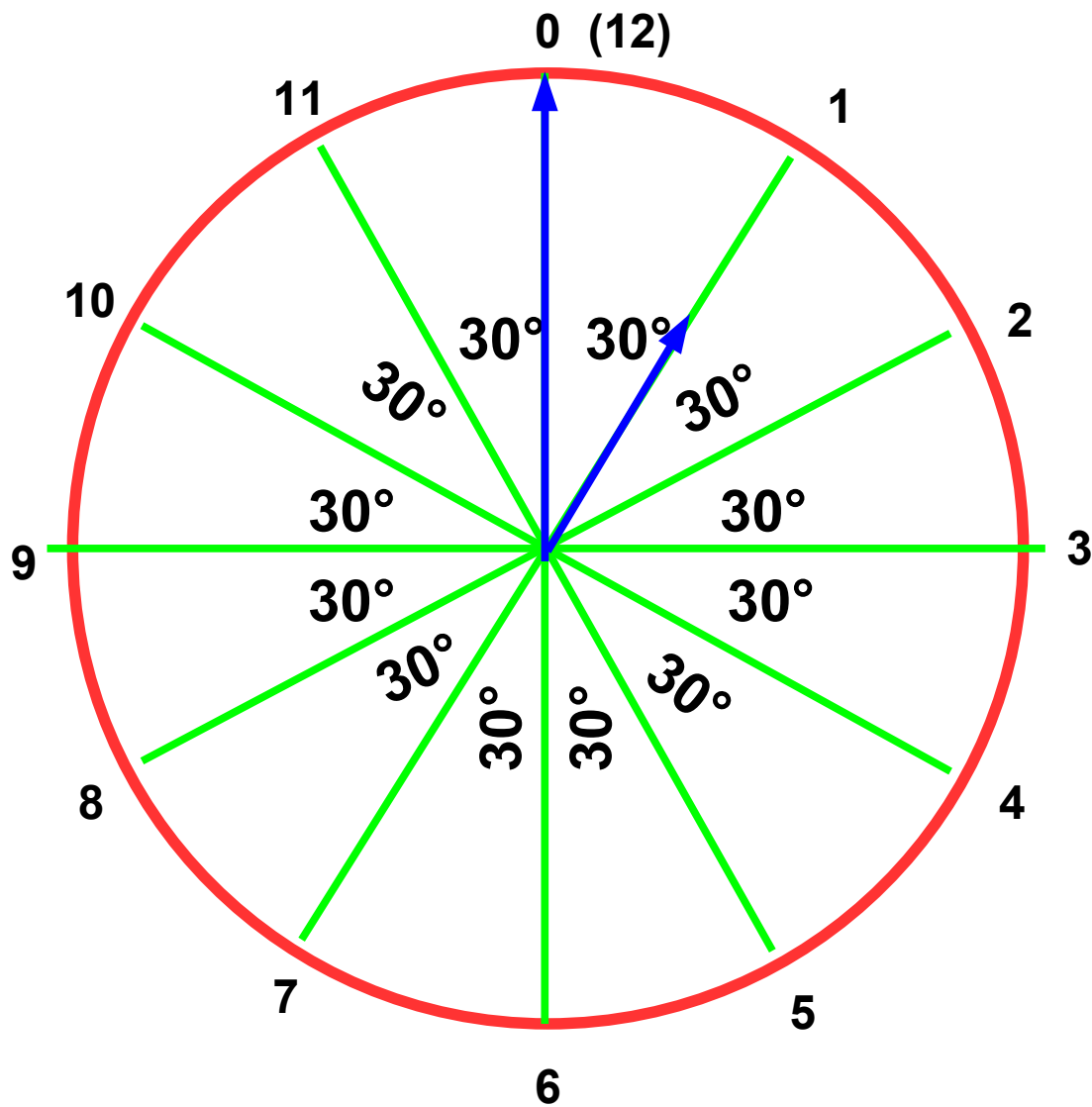
It totally adds upto 360°



We know that each sector is divided into “5 minutes”

So we have 5 small sectors in each of the sector as shown alongside.

Each of these little sectors corresponds to 6°



The angle between the minute hand and the hour hand is 30° when the time is 1 o'clock

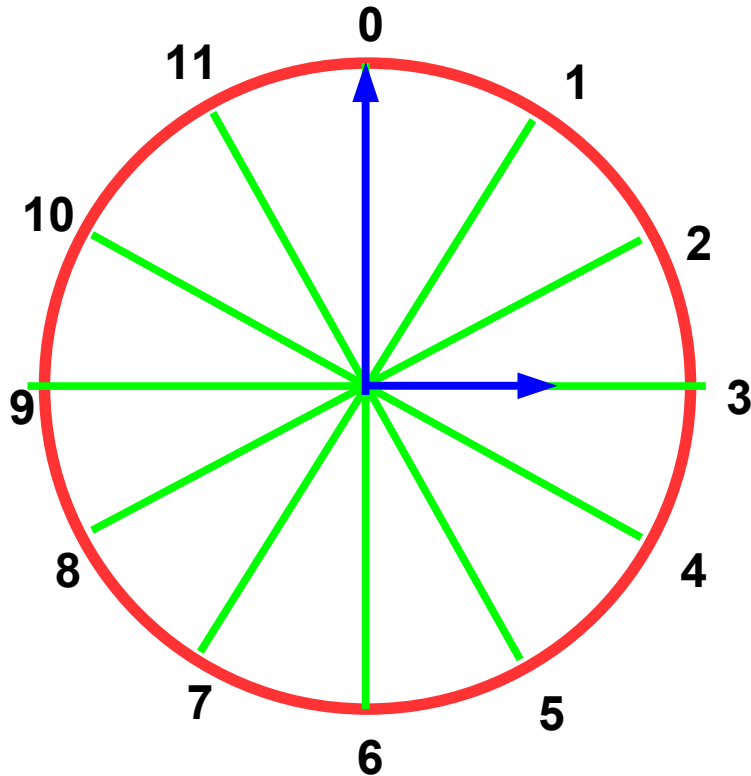
The angle between the minute and the hour hand is 60° when the time is 2 o'clock

What is the angle between the minute hand and the hour hand if the time is 3:15 am ?

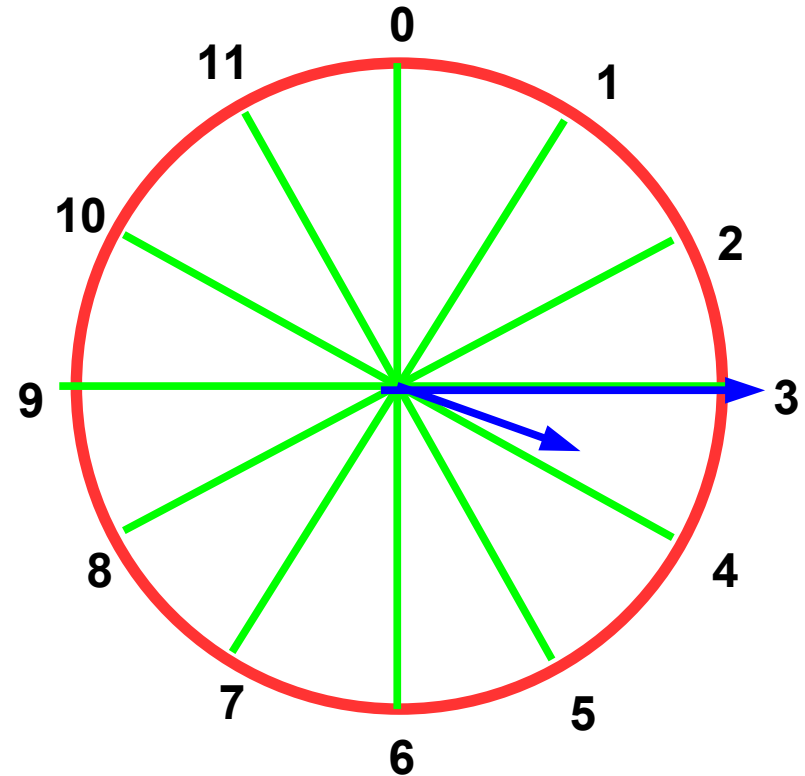
If your answer to the previous question to the previous question is 0°
then you need to pay attention to the next set of slides !!!

The Minute hand covers 360° in 60 minutes or 1 hour

The Hour hand covers 30° in 60 minutes or 1 hour



The hands at 3am



The hands at 3:15 am

In 15 mins, how many degrees does the hour hand cover ?

In 60 mins, the hour hand covers 30°

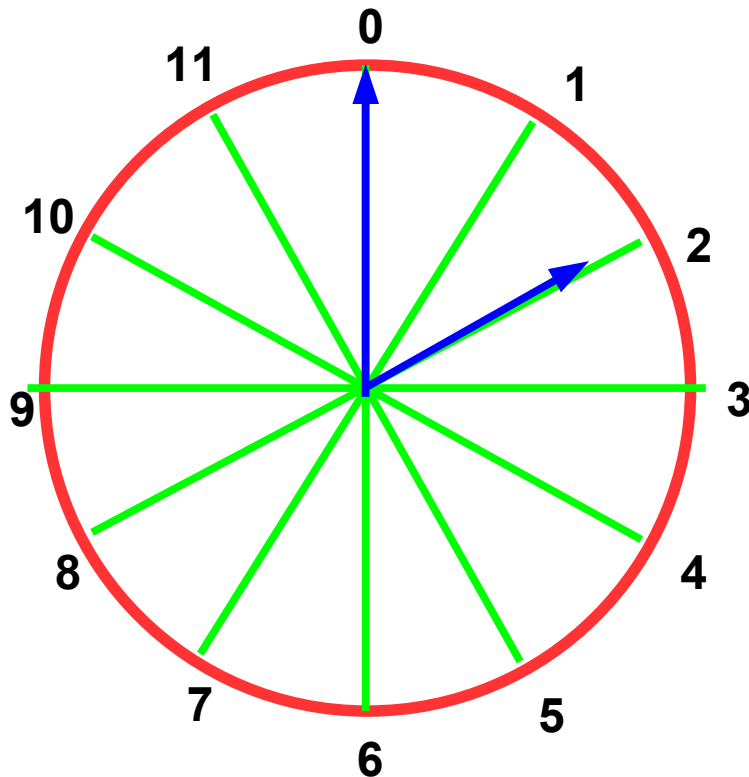
In 15 mins, the hour hand covers $30/4 = 7.5^\circ$

The angle between the hour hand and the minute hand at 3:15 am is 7.5°

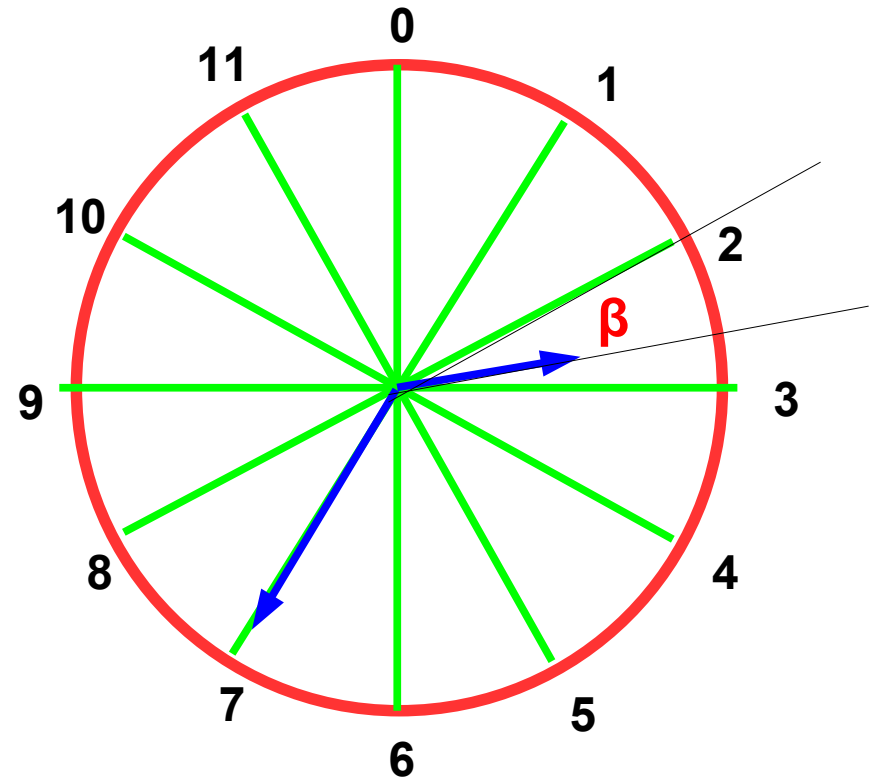
What is the angle between the minute hand and the hour hand if the time is 2:35 am ?

The Minute hand covers 360° in 60 minutes or 1 hour

The Hour hand covers 30° in 60 minutes or 1 hour



The hands at 2am



The hands at 2:35 am

In 35 mins, how many degrees does the hour hand cover ?

In 60 mins, the hour hand covers 30°

In 35 mins, the hour hand covers $35 \times 30 / 60 = 35/2^\circ = 17.5^\circ$

The angle between the hour hand and the minute hand
at 2:35 am is $(30 \times 5 - 17.5^\circ) = 150 - 17.5 = 132.5^\circ$

Quiz

(Send your solutions to support@greedge.com)

1. The Second hand of a clock covers 180° in _____ minutes
2. The minute hand of a clock covers 90° in _____ minutes
3. The hour hand of a clock covers _____ $^\circ$ in 15 minutes
4. The hour hand of a clock covers 30° in _____ minutes
5. The minute hand of a clock covers 120° in _____ minutes
6. What is the angle between the minute hand and the hour hand when the time is 6 am ?
7. What is the angle between the minute hand and the hour hand when the time is 6:15 am ?
8. What is the angle between the minute hand and the hour hand when the time is 6:30 am ?
9. What is the angle between the minute hand and the hour hand when the time is 6:45 am ?
10. What is the angle between the minute hand and the hour hand when the time is 6:52 am ?