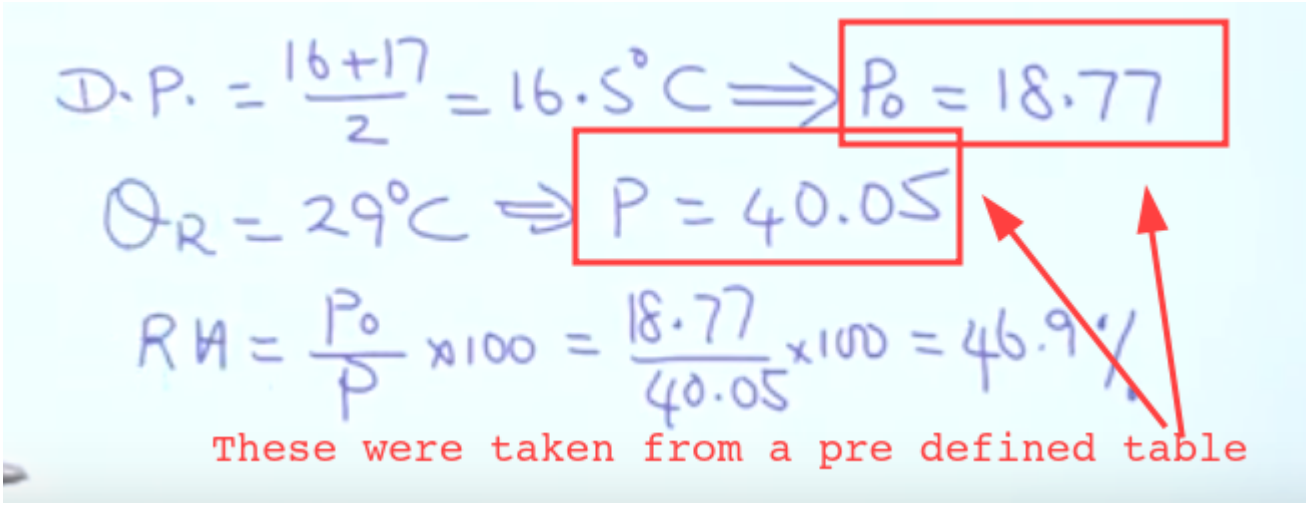
- Measurements you need

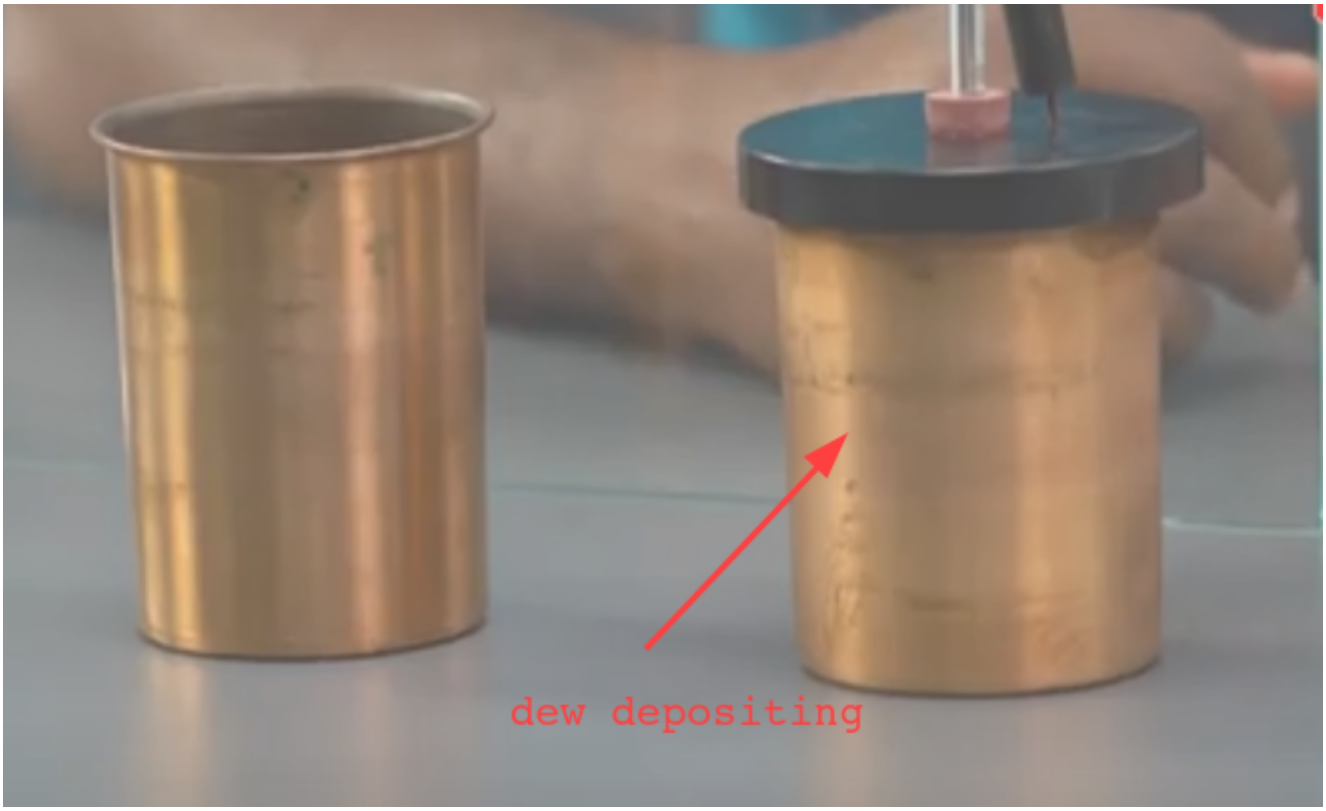
1. Temperature of the water once the dew starts forming - θ_1
2. Temperature of the water once the dew starts disappearing - θ_2

Using the average value of these 2 temperatures, we can get the dew point.

$$dew\ point = \theta_D$$
$$\theta_D = \frac{\theta_1 + \theta_2}{2}$$
$$We\ know\ R.H = \frac{S.V.P\ @\ Dew\ point}{S.V.P\ @\ room\ temperature}$$
$$Using\ this\ we\ can\ find\ R.H$$



- calorimeter for θ_1



- calorimeter for θ_2

> Dew starts vanishing

Important points

- Why do we keep a sheet of glass between us and the calorimeter?

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To make sure our exhailation is not affecting the dew formation process.
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- What are the errors that could happen if we dont have the glass sheet in between?

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Our exhailed air could strik and get deposited on the calorimeter

The R.H of the surrounding air could change due to the exhailed air.
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- Why can't we add a big ice cube or multiple ice cubes at once to the calorimeter?

```
That way if we want to stop the decrease in temperature when the dew starts forming we can't stop it from decreasing.

Therefore you need to gradually decrease the temperature by adding ice cubes one by one.
```

- Why can't we use 0c water instead of ice for this?

```
We might have to add a large amount of water to get the calorimeter to the dew point

That way the calorimeter will fill up quickly.
```

- Why do we need to keep the temperature inside the calorimeter uniform by stiring it?

```
To ensure the temperatures of water and calorimeter outer surface are equal

Here we are assuming that the temperature of air outerside the calorimeter surface is equal to the temperature of the water. For that assumption to be true, we need to maintain a uniform temperature in the water
```