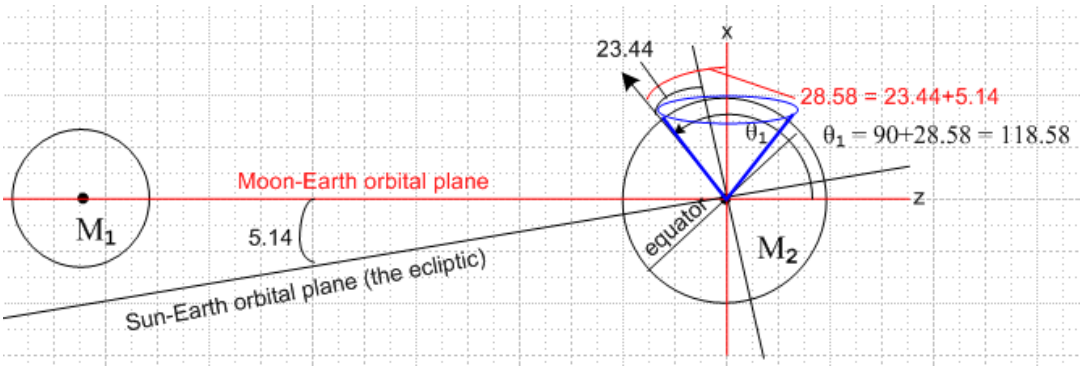
How do you explain the green and blue cones in Section 8.8? PhL 2.28.17

This matter is resolved and clarification is installed into frames doc.

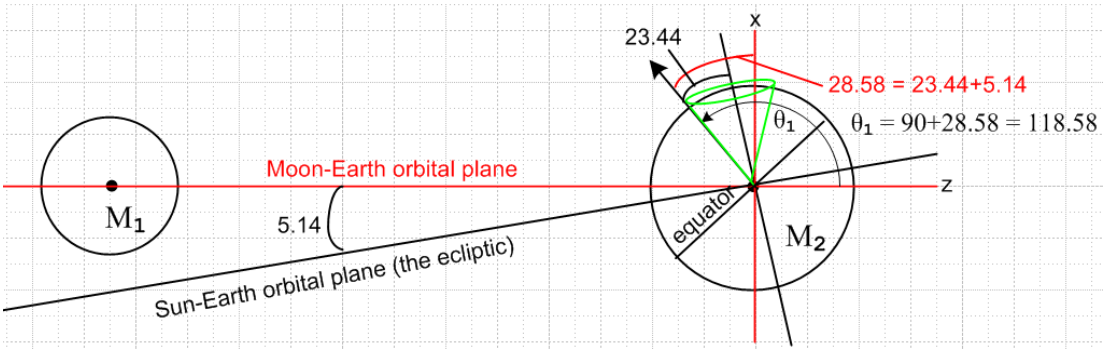
I just made these up, can I show they are correct.

The second picture I think is easier to understand



Imagine the space camera platform which keeps the moon on the left and the earth on the right. At the instant shown, earth axis is on left edge of blue cone. One week later suppose moon is at viewers head but camera gets it back on the left. If I drew the above picture at that time, the black ecliptic line would be parallel to the red line. Line of nodes is then in the plane of the picture. Earth rot vector at that time is tipped to the side of the cone shown above. Then 1 week later moon is on the right but when adjusted we get earth arrow tipped to the right above. So at least I can see the blue cone action as the path of the earth arrow *during the month*.

The first picture is harder perhaps to understand.



I claim this picture obtains once every 18.3 years, I have no idea where that number comes from. I claim that the Earth's rotation axis moves on the green cone shown. How do I justify that claim, and what does it even mean?

Does the fact that Earth orbits sun have any bearing on this, or is it irrelevant?
Relative to the stars, the Earth rotation axis is fixed for purposes of this discussion.

Does the moon's plane change as Earth orbits the sun? Does it precess? I suspect that is the issue here.

Yes, the plane of the moon's orbit precesses every 18.3 years relative to the stars.

OK, I wrote this up in a separate doc and will install that soon.