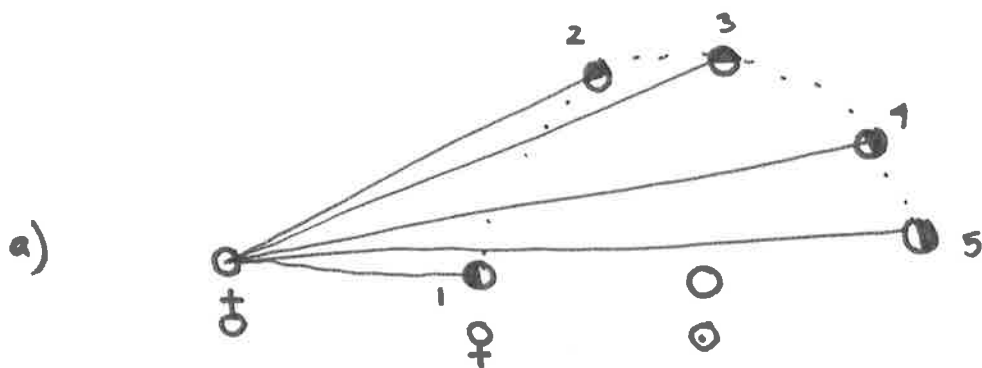


Ex 26.2 Phases of Venus

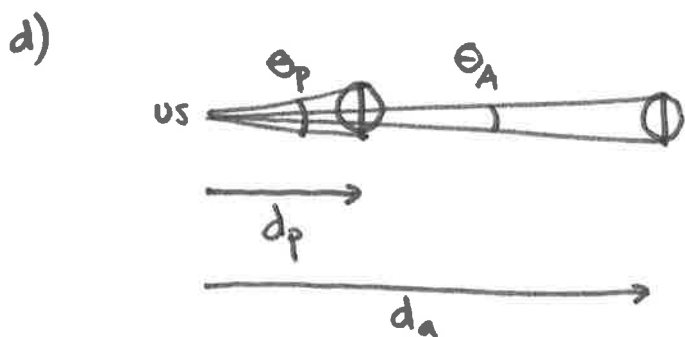


b)

<u>position</u>	<u>phase</u>
1	new
2	first quarter
3	waxing gibbous
4	waning gibbous
5	full

} All phases displayed

c) Position 2 is max. angular elongation from sun.
It is never in opposition to sun.



Since \wedge the size of Venus
true
does not change, we
must have
 $d_p \theta_p = d_a \theta_a$

Thus

$$\boxed{\frac{d_a}{d_p} = \frac{\theta_p}{\theta_a} = \frac{5}{1}}$$

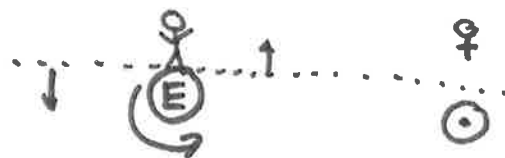
- Venus appears 5 times larger (has 5x the angular width) when at perigee than when at apogee. Since Venus appears full when at apogee, and new when at perigee, this implies that it is orbiting the sun \Rightarrow heliocentric.

e) Venus is the "morning star" when it rises just before sunrise



Morning star

Venus is the "evening star" when it sets just after sunset



evening star