

8:15 p.m.

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noon

18:30

7. What is the sidereal time on

Dec. 28 at 3:45 a.m.

July 7 at 6 p.m.

8. If Deneb (Dec. $+45^\circ$) is on the celestial meridian 9° south of the zenith, what is your latitude?

9. If Deneb is on the celestial meridian 54° north of the zenith, what is your latitude?

10. From Walla Walla (lat. $+46^\circ$), what is the altitude of Deneb when it transits?

11. From Walla Walla, what is the altitude of the south celestial pole? What is the declination of a star at the zenith? What is the farthest south dec. you can see?

12. If you are in Los Angeles (lat. 34°N) and observe a star crossing the celestial meridian 22° above the southern horizon, what is that star's declination?

13. From Walla Walla, is the star at the end of the handle of the Big Dipper (its dec. is $+50^\circ$) circumpolar?

14. From Hawaii (lat. $+20^\circ$) can you see the star α Centauri (dec. -61°)? Can you see it from Walla Walla? (If you're interested, that sort of notation means that we are referring to the brightest— α —star in the constellation Centaurus.)

15. When it's noon in Walla Walla, the local time in Louisville is 2:12 p.m. What is the longitude of Louisville?

16. When it's 3:45 p.m. in London, what is the PST? What is the standard time in Baghdad?