Math Primer Solutions 4:
TRIGONOMETRY & WAVES

[easy]

a) $\sin\left(\frac{7\pi}{4}\right)=\sin\left(-\frac{\pi}{4}\right)=-\frac{1}{\sqrt{2}}$.

b) $\cos^2(120°)+\sin^2(480°)=\cos^2(120°)+\sin^2(120°)$.

$=1$

[medium]

a) Between 7:07 and 7:43 is 36 minutes.

Therefore we have an angle of $\frac{36}{60}\times 360° = 6\times 36 = 216°$

b) $s = r\theta$

$=(2.2m)\left([216°]\left[\frac{2\pi}{360°}\right]\right)$

$\approx 8.3m$

[hard]