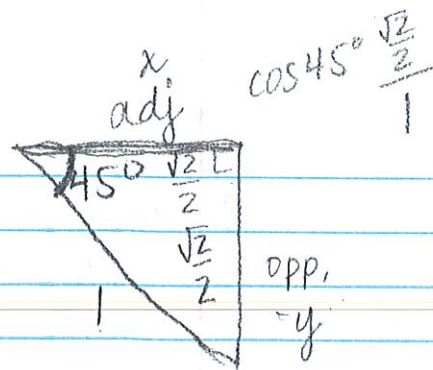


Checkpoint Quiz pg. 719



1. period 5
amplitude $\frac{1}{2}(1-(-1)) = \frac{1}{2}(2) = 1$

2. period 4
amplitude $\frac{1}{2}(3-(-1)) = \frac{1}{2}(4) = 2$

3. -45°

$\cos -45^\circ = \frac{\sqrt{2}}{2}$ $\sin -45^\circ = -\frac{\sqrt{2}}{2}$

4. 210°

$\cos 210^\circ = -\frac{\sqrt{3}}{2}$ $\sin 210^\circ = -\frac{1}{2}$

5. π radians

$\cos \pi = -1$ $\sin \pi = 0$

6. $\frac{\pi}{6}$ radians

$\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$ $\sin \frac{\pi}{6} = \frac{1}{2}$

7. -180° to radians

8. 36° to radians

$$\frac{-180}{180} = \frac{r}{\pi}$$

$$\frac{36}{180} = \frac{r}{\pi}$$

$$-1 = \frac{r}{\pi}$$

$$\frac{1}{5} = \frac{r}{\pi} \quad \frac{\pi}{5} = r$$

$$-\pi = r$$

9. π radians to degrees

$$\frac{\pi}{\pi} = \frac{d}{180}$$

$$180^\circ$$

10. $\frac{4\pi}{3}$ radians to degrees

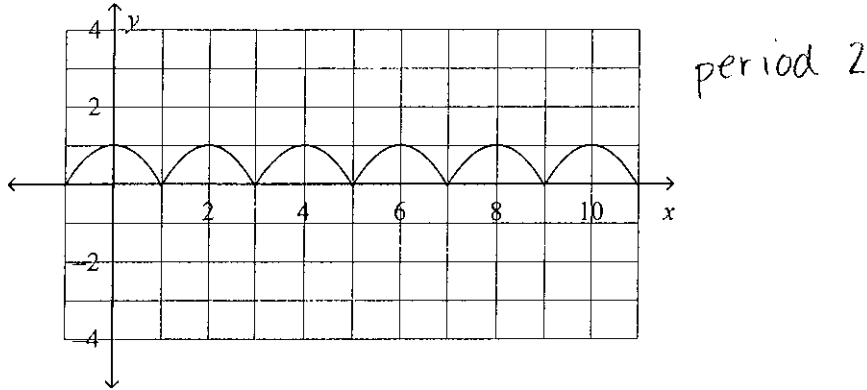
$$\frac{\frac{4\pi}{3}}{\pi} = \frac{4}{3} = \frac{d}{180}$$

$$d = 240^\circ$$

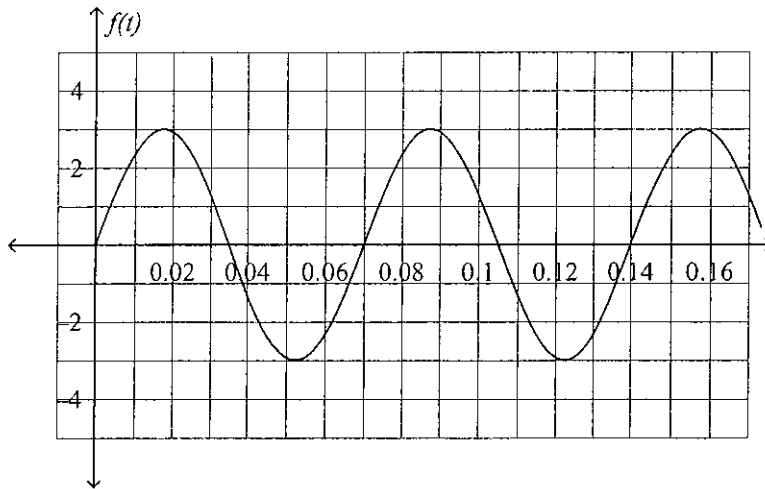
Algebra II - Trig Review 13.1-13.3

Short Answer

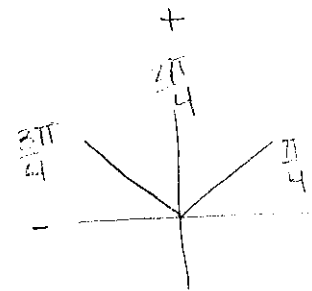
1. Use the graph below. Determine the period of this function.



2. The screen below shows the graph of a sound recorded on an oscilloscope. What is the period and the amplitude? (Each unit on the t -axis equals 0.01 seconds.)



period
0.07 seconds
amp
 $\frac{1}{2}(3 - (-3))$
 $\frac{1}{2}(6) = 3$



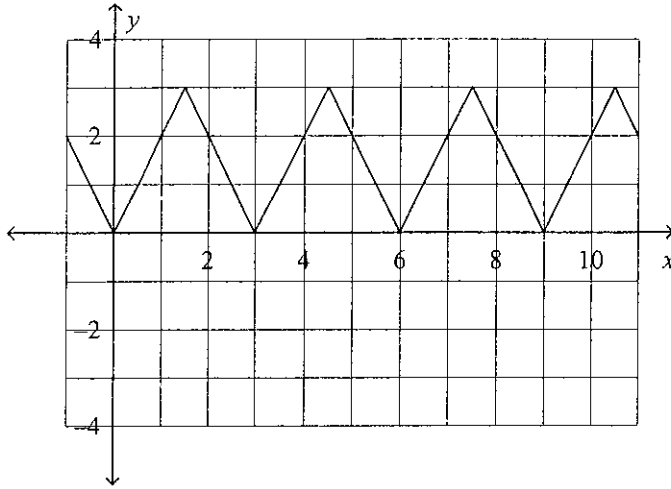
3. Find the exact values of $\cos\left(\frac{3\pi}{4} \text{ radians}\right)$ and $\sin\left(\frac{3\pi}{4} \text{ radians}\right)$.
- $-\frac{\sqrt{2}}{2}$ $\frac{\sqrt{2}}{2}$
4. Find the degree measure of an angle of 4.23 radians.

$$\frac{4.23}{\pi} = \frac{d}{180}$$

$$\frac{761.4}{\pi} = \frac{\pi d}{\pi}$$

$$242.4^\circ$$

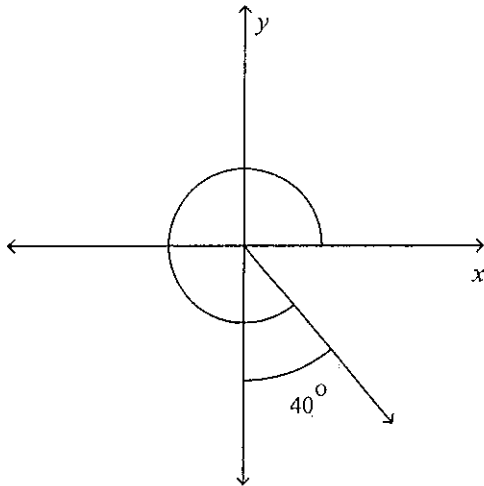
5. Find the period and the amplitude of the periodic function.



period 3
 amp. $\frac{1}{2}(3-0)$
 $= \frac{3}{2}$

period: _____ amplitude: _____

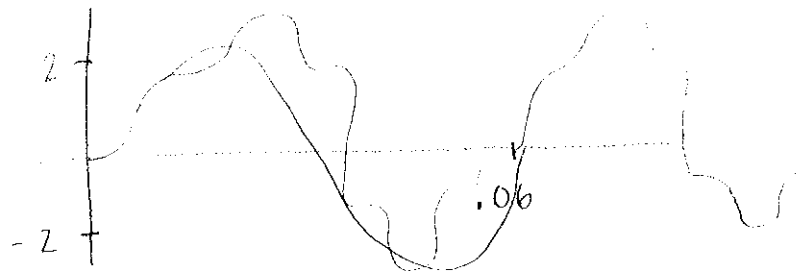
6. Find the measure of the angle below.



270
 + 40

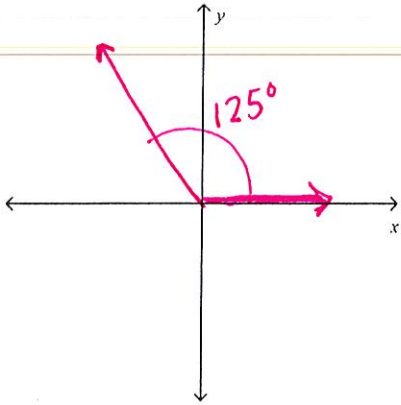
angle measure: 310°

7. A sound wave has a period of 0.06 and an amplitude of 2 units. Sketch a graph of the sound wave.

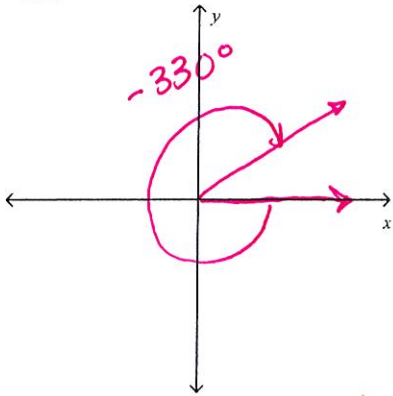


Sketch the angle in standard position.

8. 125°



9. -330°



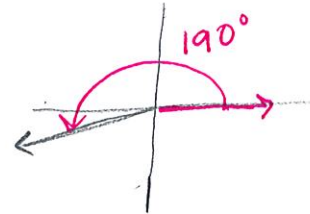
10. Find the measure of an angle between 0° and 360° coterminal with an angle of -186° in standard position.

174°

$$\begin{array}{r} 360 \\ - 186 \\ \hline 174 \end{array}$$

11. In navigation, a bearing is the angle of a course, measured in a clockwise direction, from due north. Find the positive angle in standard position for a ship's bearing of 260° .

190°

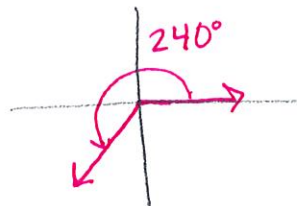


12. In which quadrant does the terminal side of a 237° angle lie?

III

13. Find the exact value of $\cos 240^\circ$ and $\sin 240^\circ$.

$\cos = \underline{-\frac{1}{2}}$ $\sin = \underline{-\frac{\sqrt{3}}{2}}$



Write the measure in radians. Express the answer in terms of π .

14. 170° $\frac{170}{180} = \frac{r}{\pi}$ $\frac{17}{18} = \frac{r}{\pi}$ $\frac{17}{18} \pi$

15. 45° $\frac{45}{180} = \frac{r}{\pi}$ $\frac{\pi}{4}$

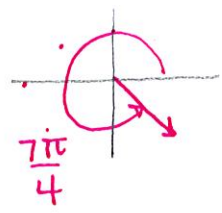
Write the measure in degrees.

16. $\frac{\pi}{2}$ radians $\frac{\pi}{2} = \frac{d}{180}$ 90°

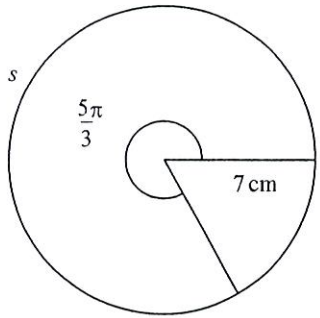
17. $-\frac{5\pi}{4}$ radians $-\frac{5\pi}{4} = \frac{d}{180}$ -225°

18. Find the exact value of $\sin\left(\frac{7\pi}{4}\right)$. $-\frac{\sqrt{2}}{2}$

19. Find the exact value of $\cos\left(\frac{7\pi}{6}\right)$. $-\frac{\sqrt{3}}{2}$

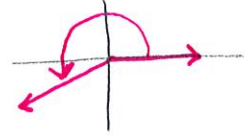


20. Use the circle below. Find the length s to the nearest tenth.

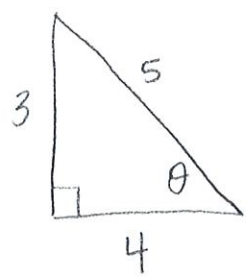


$s = 7 \cdot \frac{5\pi}{3}$

$s = \frac{35\pi}{3} = 36.7 \text{ cm}$



21. $\sin \theta = \frac{3}{5}$



$\sin \theta = \frac{3}{5}$

$\csc \theta = \frac{5}{3}$

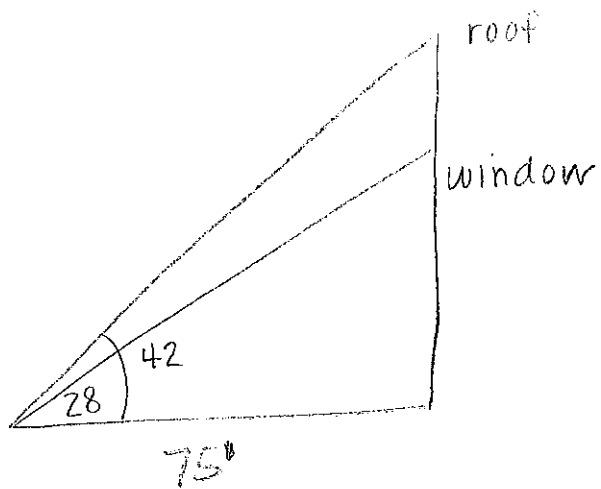
$\cos \theta = \frac{4}{5}$

$\sec \theta = \frac{5}{4}$

$\tan \theta = \frac{3}{4}$

$\cot \theta = \frac{4}{3}$

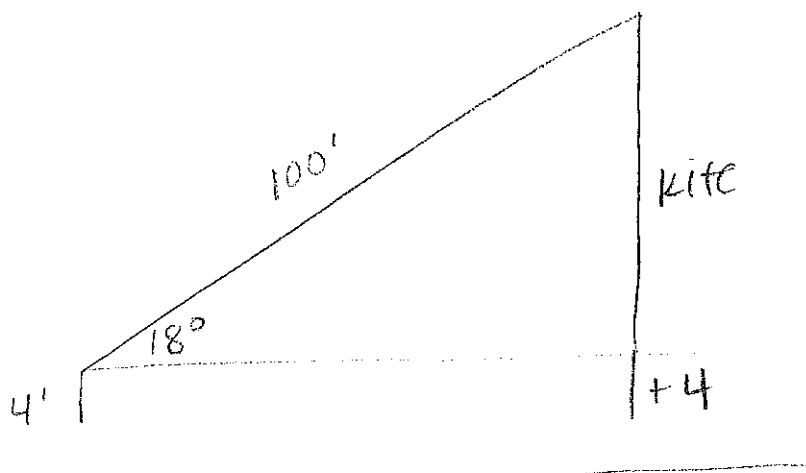
22.



$$\tan 42 = \frac{\text{roof}}{75}$$

$$- \tan 28 = \frac{\text{window}}{75}$$

23.



$$\sin 18 = \frac{k}{100}$$

$$100 \sin 18 = 30.9$$

$$+ 4$$

$$34.9$$