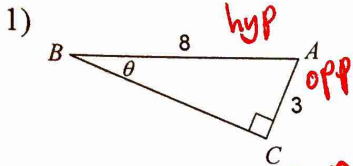


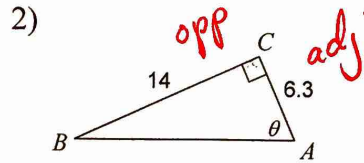
Find the measure of each angle indicated. Round to the nearest tenth.



$$\sin \theta = \frac{3}{8}$$

$$\theta = \sin^{-1}(3/8)$$

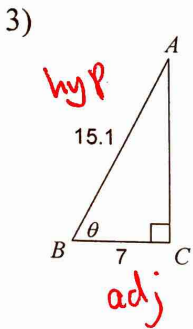
$$\theta = 22^\circ$$



$$\tan \theta = \frac{14}{6.3}$$

$$\theta = \tan^{-1}(14/6.3)$$

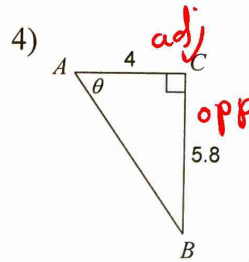
$$\theta = 65.8^\circ$$



$$\cos \theta = \frac{7}{15.1}$$

$$\theta = \cos^{-1}(7/15.1)$$

$$\theta = 62.4^\circ$$

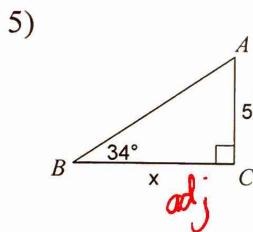


$$\tan \theta = \frac{5.8}{4}$$

$$\theta = \tan^{-1}(5.8/4)$$

$$\theta = 55.4$$

Find the measure of each side indicated. Round to the nearest tenth.

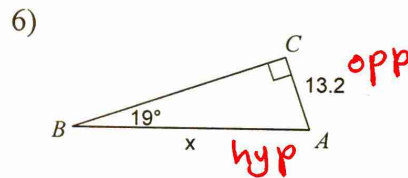


$$\tan 34 = \frac{5}{x}$$

$$x \tan 34 = 5$$

$$x = \frac{5}{\tan 34}$$

$$x = 7.4$$

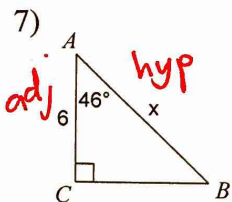


$$\sin 19 = \frac{13.2}{x}$$

$$x \sin 19 = 13.2$$

$$x = \frac{13.2}{\sin 19}$$

$$x = 40.5$$

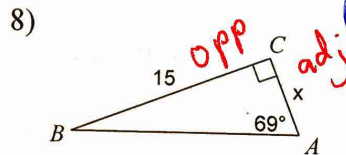


$$\cos 46 = \frac{6}{x}$$

$$x \cos 46 = 6$$

$$x = \frac{6}{\cos 46}$$

$$x = 8.6$$



$$\tan 69 = \frac{15}{x}$$

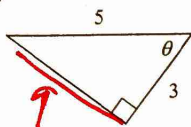
$$x \tan 69 = 15$$

$$x = \frac{15}{\tan 69}$$

$$x = 5.8$$

Find the value of the trig function indicated.

9) $\csc \theta$

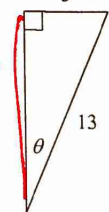


$\csc \theta = \frac{H}{O}$

$3^2 + x^2 = 5^2$
 $9 + x^2 = 25$
 $x^2 = 16$
 $x = 4$

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

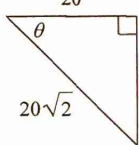
11) $\sec \theta = \frac{H}{A}$



$x^2 + 5^2 = 13^2$
 $x^2 + 25 = 169$
 $x^2 = 144$
 $x = 12$

$\sec \theta = \frac{12}{13}$

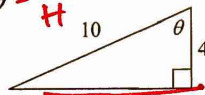
13) $\cos \theta = \frac{A}{H}$



$\cos \theta = \frac{20}{20\sqrt{2}}$
~~reduce~~
 $\cos \theta = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$\cos \theta = \frac{\sqrt{2}}{2}$

10) $\sin \theta = \frac{O}{H}$



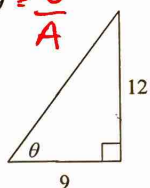
$x^2 + 4^2 = 10^2$
 $x^2 + 16 = 100$
 $x^2 = 84$
 $x = \sqrt{84}$
 $x = 2\sqrt{21}$

$\sin \theta = \frac{2\sqrt{21}}{10}$

~~reduce~~

$\sin \theta = \frac{\sqrt{21}}{5}$

12) $\tan \theta = \frac{O}{A}$



$\tan \theta = \frac{12}{9}$

~~reduce~~

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

14) $\cot \theta = \frac{A}{O}$



$\cot \theta = \frac{7}{24}$

Convert each degree measure into radians and each radian measure into degrees.

15) $-\frac{5\pi}{6} \cdot \frac{180}{\pi}$

-150°

16) $\frac{83\pi}{36} \cdot \frac{180}{\pi}$

415°

17) $\frac{\pi}{4} \cdot \frac{180}{\pi}$

45°

18) $-120^\circ \cdot \frac{\pi}{180}$

$-\frac{2\pi}{3}$

19) $765^\circ \cdot \frac{\pi}{180}$

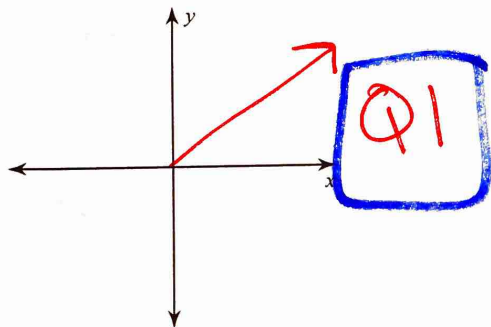
$17\frac{\pi}{4}$

20) $380^\circ \cdot \frac{\pi}{180}$

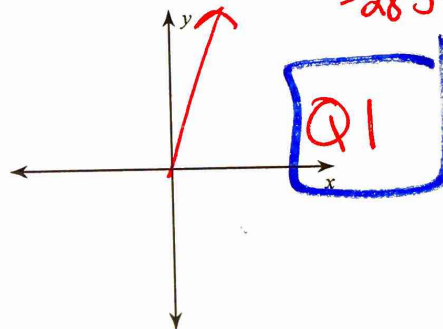
$\frac{19\pi}{9}$

Sketch an angle with the given measure in standard position and state the quadrant in which the terminal side lies.

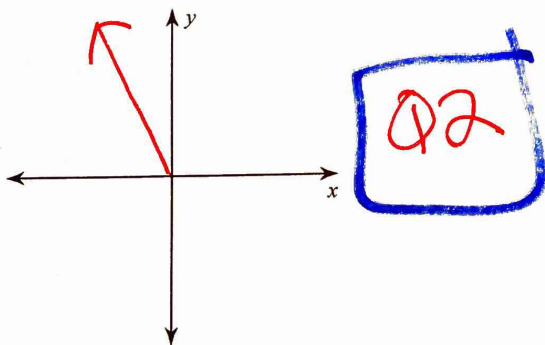
21) $\frac{\pi}{3}$



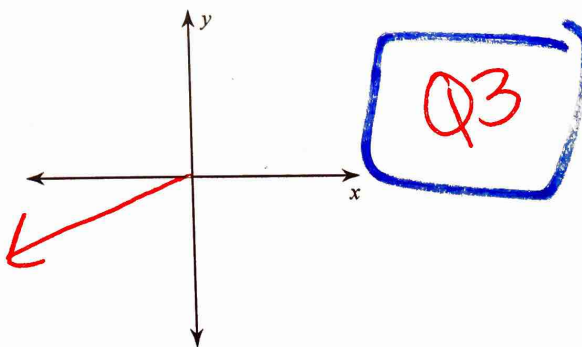
22) $-285^\circ \rightarrow$ coterminal angle
 $-285 + 360 = 75^\circ$



23) $-\frac{11\pi}{4} + 2\pi = -\frac{3\pi}{4} + 2\pi = \frac{5\pi}{4}$



24) $580^\circ - 360 = 220$



State if the given angles are coterminal.

25) $85^\circ, -215^\circ \rightarrow -215 + 360 = 145^\circ$

no

26) $\frac{17\pi}{18}, -\frac{19\pi}{18} + 2\pi = \frac{17\pi}{18}$

yes

Find a coterminal angle between 0° and 360° .

27) $-300^\circ + 360$

60°

28) $365^\circ - 360$

5°

Find a coterminal angle between 0 and 2π for each given angle.

29) $\frac{317\pi}{90} - 2\pi$

$\frac{137\pi}{90}$

30) $-\frac{13\pi}{6} + 2\pi$

$-\frac{\pi}{6} + 2\pi$
 $\frac{11\pi}{6}$

Find a positive and a negative coterminal angle for each given angle.

31) $\frac{11\pi}{4}$

negative

$-\frac{19\pi}{4}$

$-\frac{3\pi}{4}$

positive

$\frac{5\pi}{4}$

32) -470°

negative

-830°

-110°

positive

250°