

**PRE-CALCULUS
EOC Review#1**

Assignment # _____

Name _____ Date _____ Per _____

Show all the work. NO WORK = NO CREDIT

- 1) Find one negative and one positive angle coterminal with:
 a) $\frac{\pi}{6}$ b) $-\frac{2\pi}{3}$ c) 435°

- 2) Find the reference angle for each of the following:
 a) 215° b) $\frac{5\pi}{6}$ c) $-\frac{3\pi}{4}$ d) 272°

- 3) Use a calculator to find the following values to 4 decimal places:
 a) $\csc(-51^\circ)$ b) $\cot 138^\circ$ c) $\sec 190^\circ$

- 4) If $\csc \theta = -\frac{2\sqrt{3}}{3}$, and $\cos \theta < 0$, find:
 a) $\sin \theta$ b) $\cos \theta$ c) $\tan \theta$

- 5) If $\csc \theta = \frac{25}{24}$, find $\cot \theta$ for $0 < \theta < 90^\circ$.

- 6) If $\sin \theta = -\frac{12}{13}$, and the terminal side of θ lies in Quadrant IV, find $\cos \theta$.

- 7) Express $\sin 1485^\circ$ as a function of an angle in Quadrant I.

- 8) Express $\csc(-430^\circ)$ as a function of an angle in Quadrant I.

- 9) If the terminal side of θ contains the point $(-8,15)$, find:
 a) $\sin \theta$ b) $\cos \theta$ c) $\tan \theta$
 d) $\cot \theta$ e) $\sec \theta$ f) $\csc \theta$

1a)
b)
c)
2a)
b)
c)
d)
3a)
b)
c)
4a)
b)
c)
5)
6)
7)
8)
9a)
b)
c)
d)
e)
f)

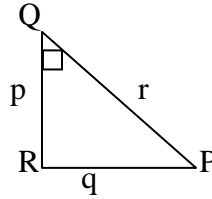
10) Solve right triangle ABC where $m\angle A=42^\circ$, $c=20$, $m\angle B=90^\circ$.

Round answers to the nearest whole number

a) $m\angle C \approx ?$ b) $b \approx ?$ c) $a \approx ?$

11) Use right triangle trigonometry to express each of the following in 2 ways:

a) $p =$ b) $q =$ c) $r =$



12) If $\tan x = \frac{1}{4}$, find $\tan 2x$.

13) If $\cos x = -\frac{4}{5}$, and $\sin x > 0$, evaluate $\cos\left(x + \frac{\pi}{6}\right)$

14) Convert to radians:

a) 40° b) 55° c) -60.5°

15) Convert to degrees:

a) $\frac{2\pi}{3}$ b) $-\frac{3\pi}{8}$ c) $\frac{7\pi}{3}$ d) -5π

16) Find the arc length (s) of a circle with the given radius (r) and intercepted by the given central angle (Θ). **Express answers in simplest radical form.**

a) $r = 5, \Theta = 60^\circ$ b) $r = 2, \Theta = 135^\circ$ c) $r = 3, \Theta = 330^\circ$

17) Find the exact values of:

a) $\csc \frac{5\pi}{6}$ b) $\cot\left(-\frac{2\pi}{3}\right)$ c) $\tan 315^\circ$

d) $\sin\left(-\frac{\pi}{6}\right)$ e) $\cos(-\pi)$ f) $\sec\left(-\frac{3\pi}{2}\right)$

g) $\csc \frac{3\pi}{4}$ h) $\tan 0$ i) $\tan \pi$

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10a)
b)
c)
11a)
b)
c)
12)
13)
14) a) b)
c)
15a)
b)
c)
d)
16) a)
b)
c)
17a)
b)
c)
d)
e)
f)
g)
h)
i)