NAME:_____

1. 080417b, P.I. A2.A.57
Which angle is coterminal with an angle of 125°?

[A] 425° [B] -125°

[C] -235° [D] 235°

2. 060503b, P.I. A2.A.57
Expressed as a function of a positive acute angle, sin (-230°) is equal to

[A] sin 50° [B] -sin 50°

[C] -cos 50° [D] cos 50°

3. 010818b, P.I. A2.A.57
The expression $\cos(\pi - x)$ is equivalent to

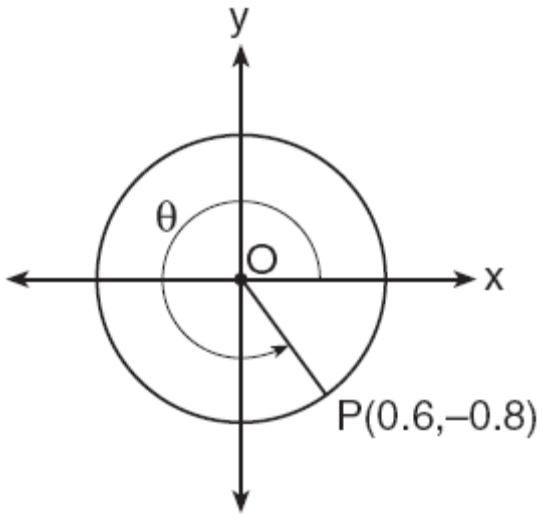
[A] $\cos x$ [B] $-\cos x$

[C] $-\sin x$ [D] $\sin x$

4. 010205b, P.I. A2.A.56
If θ is an angle in standard position and its terminal side passes through the point $(\frac{1}{2}, \frac{\sqrt{3}}{2})$ on a unit circle, a possible value of θ is

[A] 150° [B] 30° [C] 60° [D] 120°

5. 010422b, P.I. A2.A.62
In the accompanying diagram, point $P(0.6,-0.8)$ is on unit circle O. What is the value of θ, to the *nearest degree*?



6. 010911b, P.I. A2.A.58
What is a value of $\text{Arc}\sin(-\frac{\sqrt{2}}{2})$?

[A] $\frac{\pi}{4}$ [B] $-\frac{\pi}{4}$ [C] $-\frac{\pi}{2}$ [D] $\frac{\pi}{2}$

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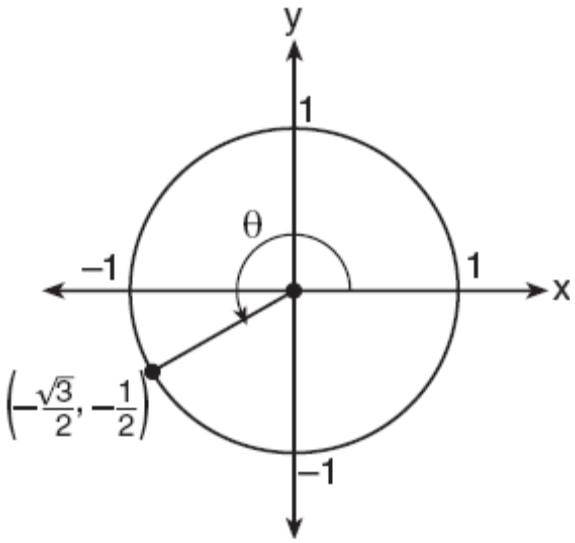
7. 080510b, P.I. A2.A.62

In the accompanying diagram of a unit circle, the ordered pair $(-\frac{\sqrt{3}}{2},-\frac{1}{2})$ represents the point where the terminal side of θ intersects the unit circle.

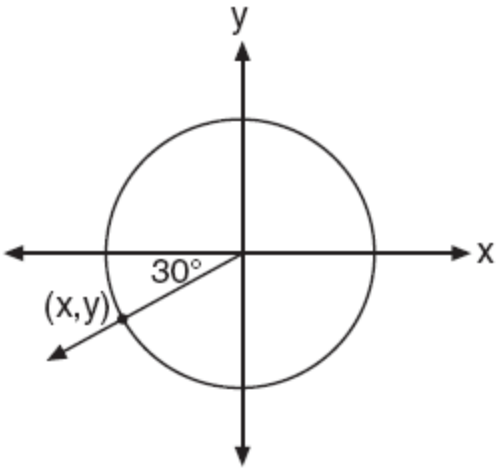


What is $m\angle\theta$?

[A] 240 [B] 225 [C] 210 [D] 233

8. 010718b, P.I. A2.A.62

In the unit circle shown in the accompanying diagram, what are the coordinates of (x,y)?



[A] $(-\frac{\sqrt{3}}{2},-0.5)$ [B] $(-0.5,-\frac{\sqrt{3}}{2})$

[C] $(-\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2})$ [D] $(-30,-210)$

9. 080121b

If the sine of an angle is $\frac{3}{5}$ and the angle is *not* in Quadrant I, what is the value of the cosine of the angle?

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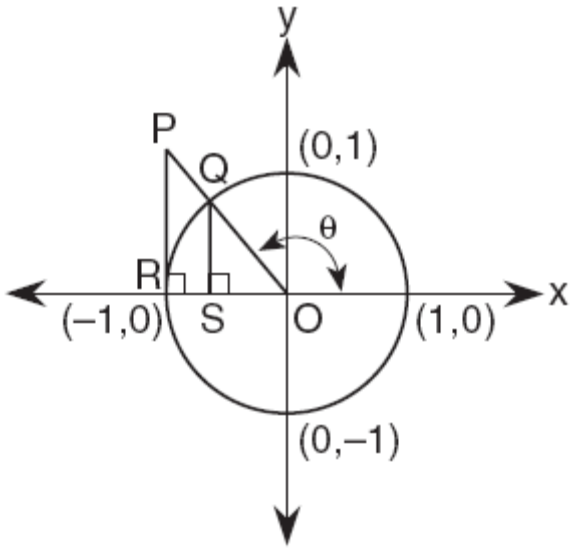
10. 060520b

In the accompanying diagram, $\overline{PR}$ is tangent to circle O at R, $\overline{QS} \perp \overline{OR}$, and $\overline{PR} \perp \overline{OR}$.



Which measure represents $\sin\theta$?

[A] QS [B] PR [C] RO [D] SO

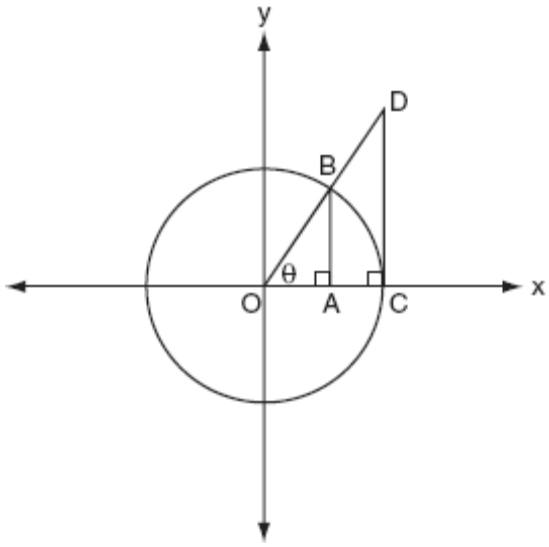
11. 080604b

If x is a positive acute angle and $\cos x = \frac{\sqrt{3}}{4}$, what is the exact value of $\sin x$?

[A] $\frac{\sqrt{3}}{5}$ [B] $\frac{3}{5}$ [C] $\frac{\sqrt{13}}{4}$ [D] $\frac{4}{5}$

12. 080618b

The accompanying diagram shows unit circle O, with radius $OB = 1$.



Which line segment has a length equivalent to $\cos\theta$?

[A] $\overline{AB}$ [B] $\overline{OC}$ [C] $\overline{OA}$ [D] $\overline{CD}$

13. 080511b

Two straight roads intersect at an angle whose measure is 125°. Which expression is equivalent to the cosine of this angle?

[A] -cos 35° [B] cos 55°

[C] cos 35° [D] -cos 55°

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14. 010616b, P.I. A2.A.62
If θ is an angle in standard position and $P(-3,4)$ is a point on the terminal side of θ, what is the value of $\sin\theta$?

[A] $-\frac{3}{5}$ [B] $\frac{3}{5}$ [C] $-\frac{4}{5}$ [D] $\frac{4}{5}$

15. fall9920b, P.I. A2.A.62
The origin of a coordinate grid is labeled A. Line segment AB forms an angle of 30° with the x-axis. If $AB = 8$, the coordinates of B are:

[A] $(8\cos 30°, 8\sin 30°)$ [B] $(6, 4)$

[C] $(4, 4\sqrt{3})$ [D] $(8\sin 30°, 8\cos 30°)$

16. 060302b, P.I. A2.A.58
If $\sin\theta > 0$ and $\sec\theta < 0$, in which quadrant does the terminal side of angle θ lie?

[A] IV [B] I [C] III [D] II

17. 080410b, P.I. A2.A.58
If the tangent of an angle is negative and its secant is positive, in which quadrant does the angle terminate?

[A] IV [B] I [C] II [D] III

18. 080909b, P.I. A2.A.58
Which functions are positive for angles terminating in Quadrant II?

[A] sine and tangent

[B] sine and cosine [C] sine and cosecant

[D] sine and secant

19. 060502b
If $\sin\theta$ is negative and $\cos\theta$ is negative, in which quadrant does the terminal side of θ lie?

[A] IV [B] III [C] II [D] I

20. 060609b, P.I. A2.A.58
If $\tan\theta = 2.7$ and $\csc\theta < 0$, in which quadrant does θ lie?

[A] II [B] III [C] IV [D] I

[1] C

[2] A

[3] B

[4] C

[5] [2] 307, and appropriate work is shown.
[1] Appropriate work is shown, but one computational error is made.
or [1] Appropriate work is shown, but one conceptual error is made.
or [1] Appropriate work is shown to find the value of the reference angle, but no further correct work is shown.
or [1] 307, but no work is shown.
[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

[6] B

[7] C

[8] A

[9] [2] $-\frac{4}{5}$ or -0.8, and appropriate work is shown.
[1] $\frac{4}{5}$ or 0.8, and appropriate work is shown, but the quadrant was not taken into consideration.
or [1] $-\frac{4}{5}$ or -0.8, but no work is shown.
[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

[10] A

[11] C

[12] C

[13] D

[14] D

[15] A

[16] D

[17] A

[18] C

[19] B

[20] B