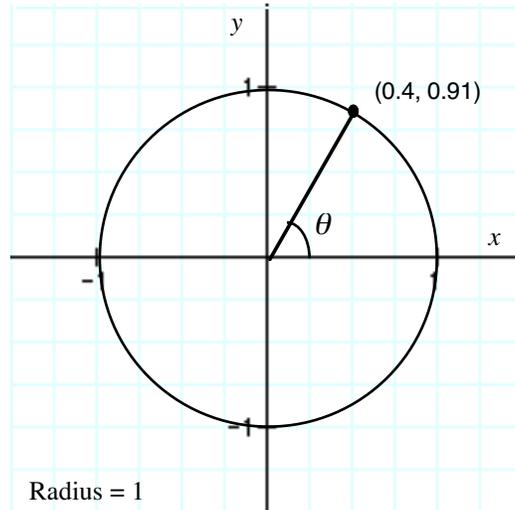


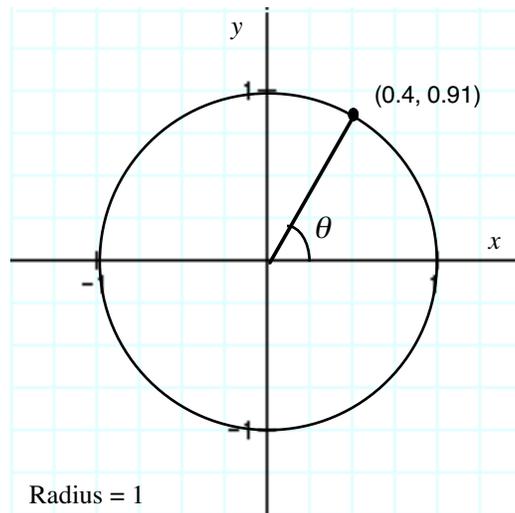
Problems for Gateway #3: The Unit Circle Definition of Sine and Cosine and Inverse Trigonometric Functions

1. The value of θ is:



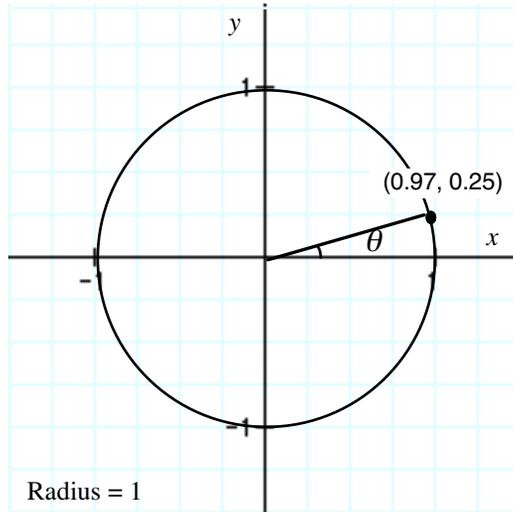
- (a) $\cos^{-1}(0.91)$ (b) $\sin^{-1}(0.91)$
 (c) $\tan^{-1}(0.4)$ (d) $\sin^{-1}((0.91)^2 + (0.4)^2)$
 (e) None of the above.

2. The value of θ is:

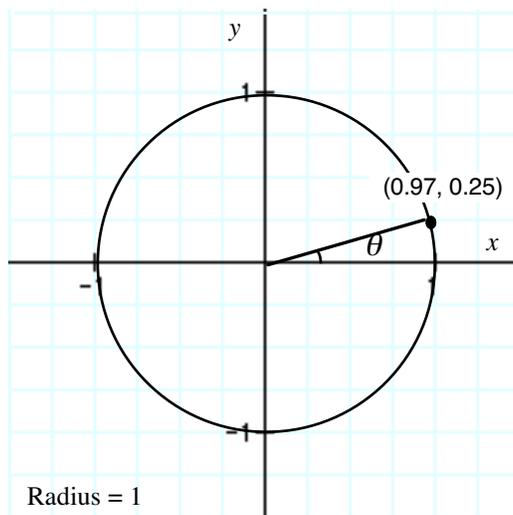


- (a) $\cos^{-1}(0.91)$ (b) $\tan^{-1}(0.91)$
 (c) $\cos^{-1}(0.4)$ (d) $\sin^{-1}(0.4)$
 (e) None of the above.

3. The value of θ is:

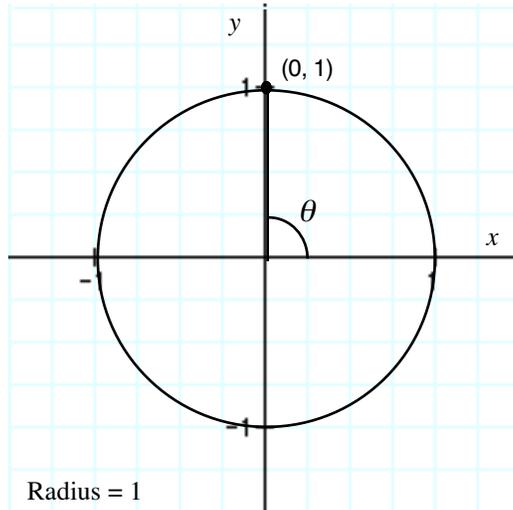


- (a) $\cos^{-1}(0.25)$ (b) $\sin^{-1}(0.25)$
(c) $\sin^{-1}(0.97)$ (d) $\sin^{-1}(1)$
(e) None of the above.
4. The value of θ is:

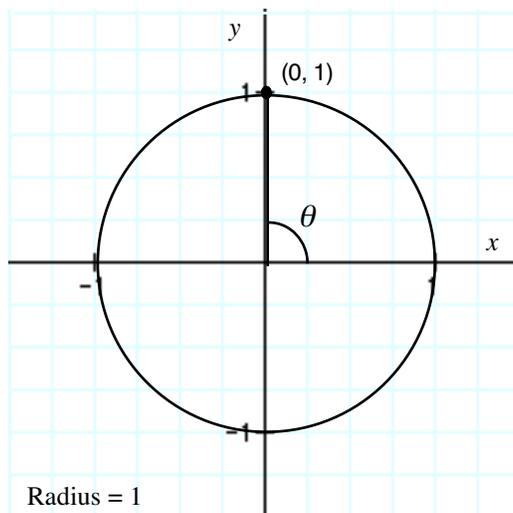


- (a) $\cos^{-1}(0.25)$ (b) $\sin^{-1}(0.97)$
(c) $\tan^{-1}(0.25)$ (d) $\cos^{-1}(0.97)$
(e) None of the above.

5. The value of θ is:

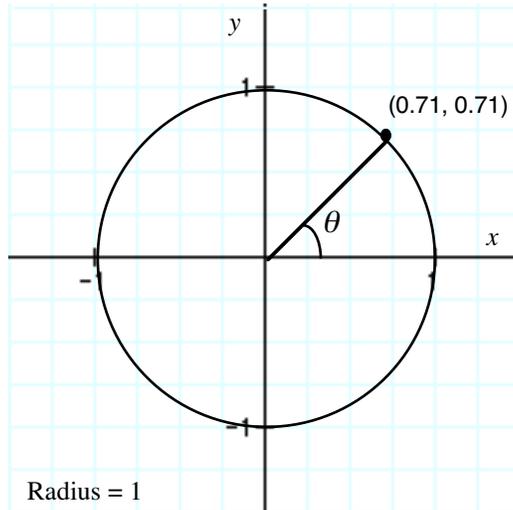


- (a) $\sin^{-1}(1)$ (b) $\sin^{-1}(0)$
(c) $\cos^{-1}(1)$ (d) $\tan^{-1}(1)$
(e) None of the above.
6. The value of θ is:



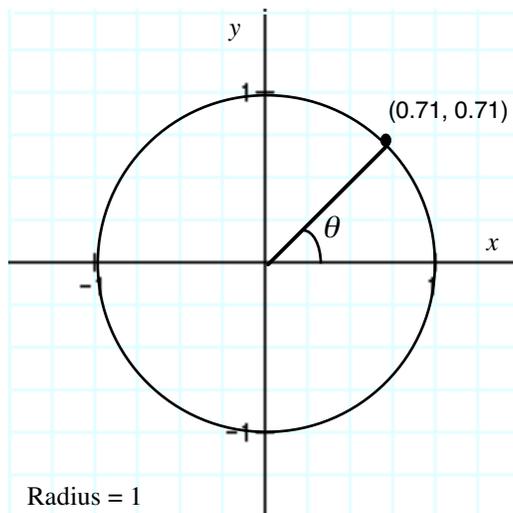
- (a) $\cos^{-1}(0)$ (b) $\sin^{-1}(0)$
(c) $\tan^{-1}(0)$ (d) $\tan^{-1}(1)$
(e) None of the above.

7. The value of θ is:



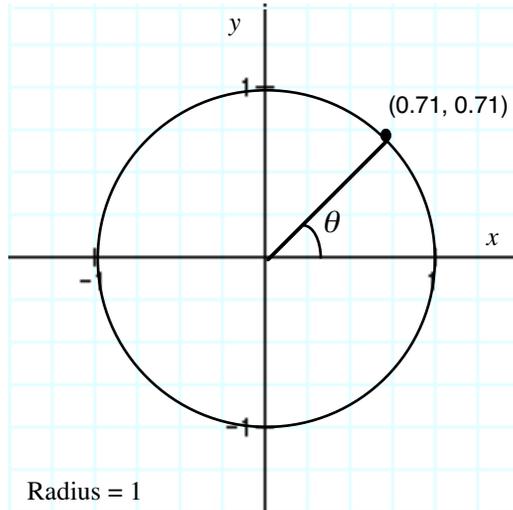
- (a) $\cos^{-1}(1)$ (b) $\sin^{-1}(1)$
(c) $\tan^{-1}(0.71)$ (d) $\sin^{-1}(0.71)$
(e) None of the above.

8. The value of θ is:



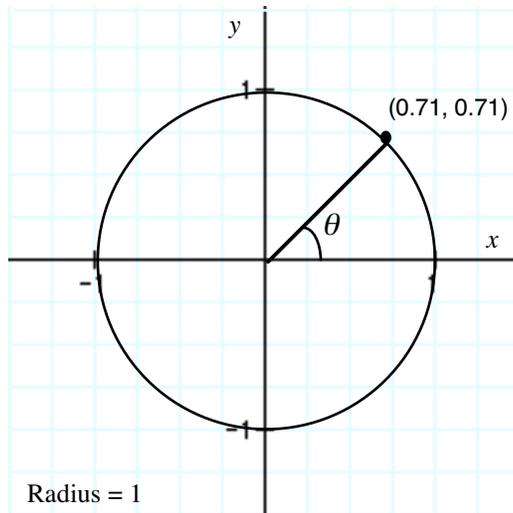
- (a) $\cos^{-1}(1)$ (b) $\cos^{-1}(0.71)$
(c) $\tan^{-1}(0.71)$ (d) $\sin^{-1}(1)$
(e) None of the above.

9. The value of θ is:



- (a) $\cos^{-1}(1)$ (b) $\sin^{-1}(1)$
 (c) $\tan^{-1}(1)$ (d) $\tan^{-1}(0.71)$
 (e) None of the above.

10. The value of θ is:



- (a) $\cos^{-1}(1)$ (b) $\sin^{-1}(1)$
 (c) $\tan^{-1}(0.71)$ (d) $\frac{\pi}{4}$
 (e) None of the above.

ANSWERS:

1. B 2. C 3. B 4. D 5. A 6. A
 7. D 8. B 9. C 10. D