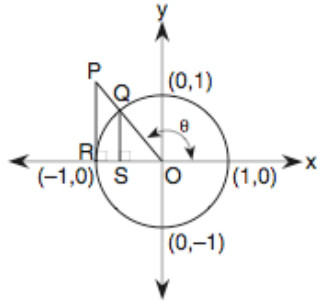


1. In the accompanying diagram, \overline{PR} is tangent to circle O at R , $\overline{QS} \perp \overline{OR}$, and $\overline{PR} \perp \overline{OR}$



Which measure represents $\sin \theta$?

- (1) SO
- (2) RO
- (3) PR
- (4) QS

1.

2. Express as a function of a positive acute angle: $\sin(-230^\circ)$

3. Express as a function of a positive acute angle: $\csc(-135^\circ)$

2.

4. Find the exact value of $\tan 765^\circ$.

5. Express as a function of a positive acute angle: $\sec(-660^\circ)$.

3.

4.

6. Solve for x to the nearest hundredth:
 $5x^{0.789} = 22$

7. Solve for x :
 $\frac{1}{2} \log(x+2) = 2$

5.

6.

8. Which transformation is an example of an opposite isometry?
 (1) $(x, y) \rightarrow (x+3, y-6)$
 (2) $(x, y) \rightarrow (3x, 3y)$
 (3) $(x, y) \rightarrow (y, x)$
 (4) $(x, y) \rightarrow (y, -x)$

9. If $\log_5 x + \log_5 y = 4$, solve for x in terms of y .

7.

8.

9.

10. The graph of the function $g(x)$ is shown on the accompanying set of axes. On the same set of axes, sketch the image of $g(x)$ under the transformation D_2 .

