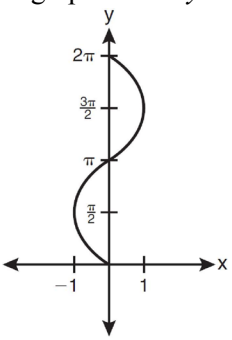
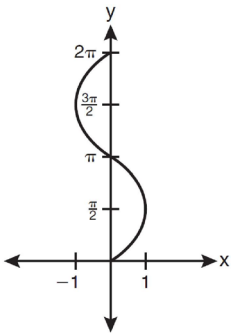
A2.A.65: Graphing Trigonometric Functions: Sketch the graph of the inverses of the sine, cosine, and tangent functions

1 Which graph shows $y = \cos^{-1} x$?

1)


2)


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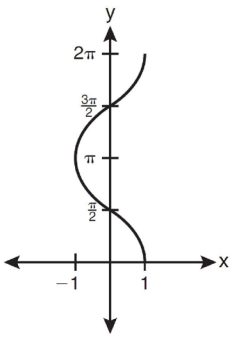
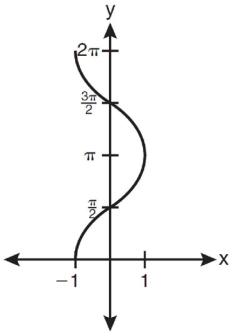
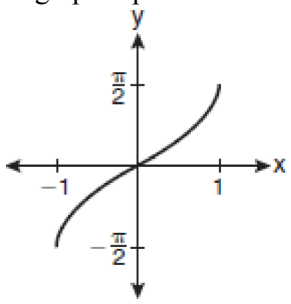
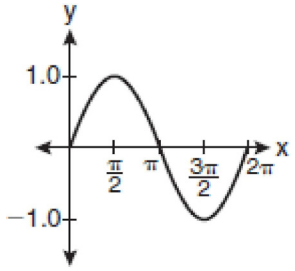
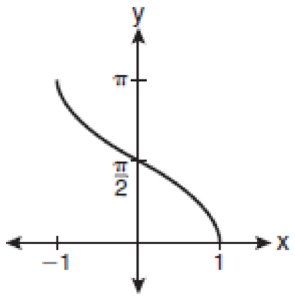


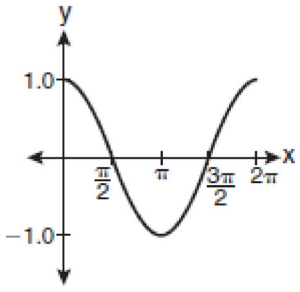
4)


2 Which graph represents the equation $y = \cos^{-1} x$?

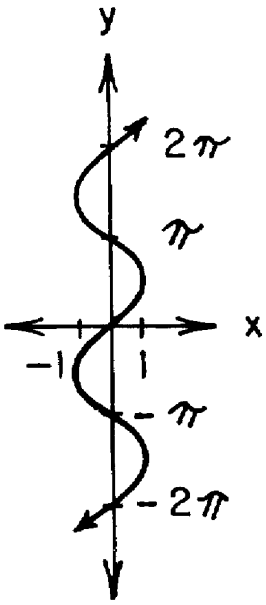
1)


2)


3)


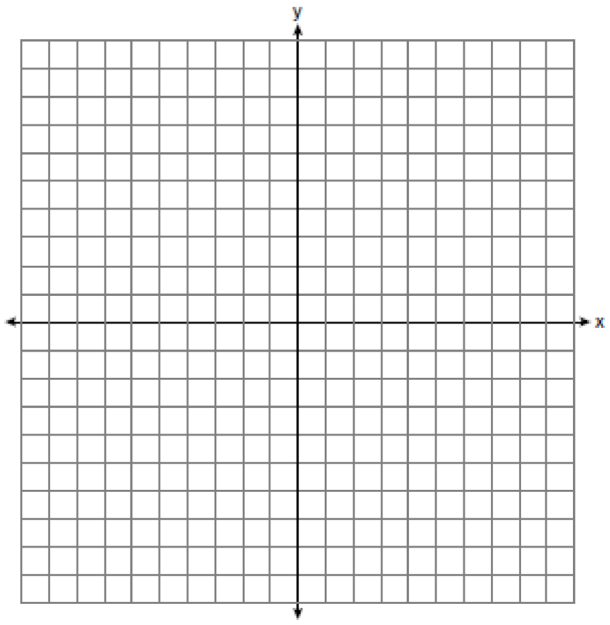
4)


3 Which is an equation of the graph shown below?



1) $y = \arcsin x$
2) $y = \arccos x$
3) $y = \sec x$
4) $y = \csc x$

4 (1) Graph the equation $y = 3\sin x$ in the domain $-\frac{\pi}{2} \le x \le \frac{\pi}{2}$.
(2) On the same set of axes, reflect the graph drawn in part (1) in the line $y = x$, and label the graph *b*.
(3) Is the relation graphed in part (2) a function? State a mathematical justification for your answer.
(4) Write an equation the represents the graph drawn in part (2).



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Answer Section

1 ANS: 3 REF: 061119a2
2 ANS: 3 REF: fall0913a2
3 ANS: 1 REF: 068631siii
4 ANS:
yes, $x = 3\sin y$

REF: 019436siii