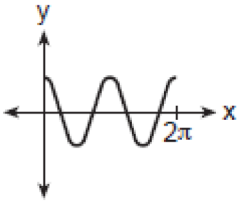
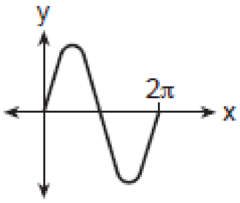
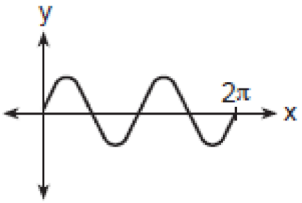
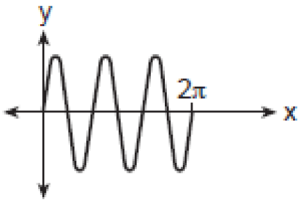
A2.A.70: Graphing Trigonometric Functions 2: Sketch and recognize one cycle of a function of the form y = AsinBx or y = AcosBx

1 Which graph represents a sound wave that follows a curve whose period is π and that is in the form $y = a\sin bx$?

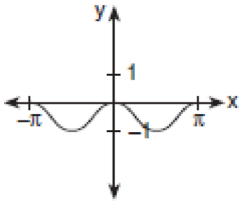
1)


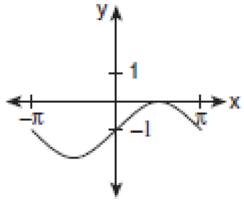
2)


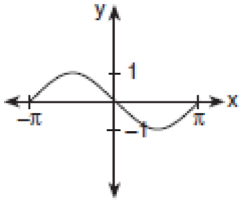
3)


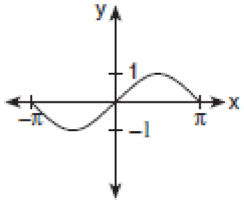
4)


2 Which graph represents the function $f(x) = -\sin x$ in the interval $-\pi \le x \le \pi$?

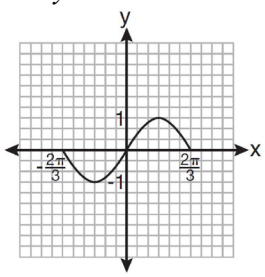
1)


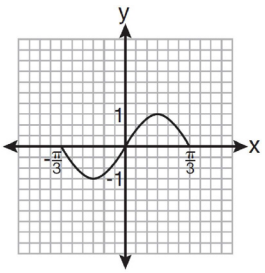
2)


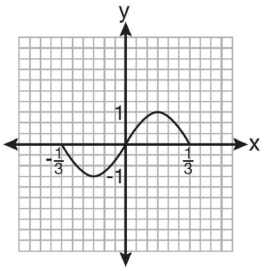
3)


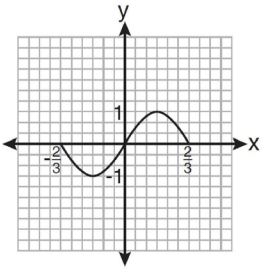
4)


3 Which graph represents one complete cycle of the equation $y = \sin 3\pi x$?

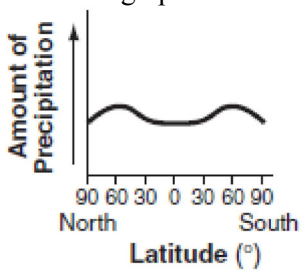
1)


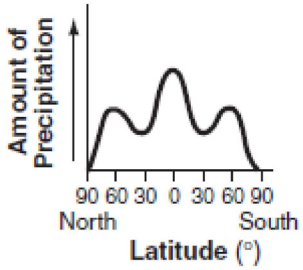
2)


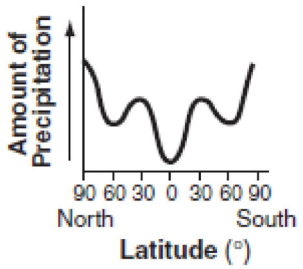
3)


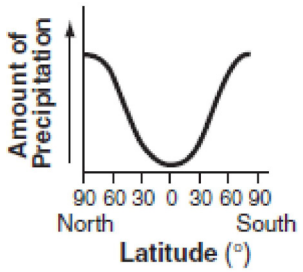
4)


4 The graphs below show the average annual precipitation received at different latitudes on Earth. Which graph is a translated cosine curve?

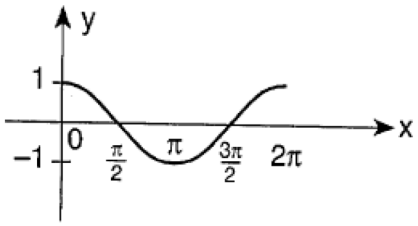
1)


2)


3)


4)


5 The graph below *incorrectly* represents the equation $y = 2\cos x$. Write a mathematical explanation of why this graph is incorrect.



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Answer Section

1 ANS: 3 PTS: 2 REF: 080815b
2 ANS: 3 PTS: 2 REF: 060228siii
3 ANS: 3 PTS: 2 REF: 081026a2
4 ANS: 4 PTS: 2 REF: 080503b
5 ANS:
Amplitude should be 2.

PTS: 2 REF: 089736siii