Questions

In the investigation, assume all constants of integration are zero and each integration and differentiation is done with respect to the variable x.

Which graph ...

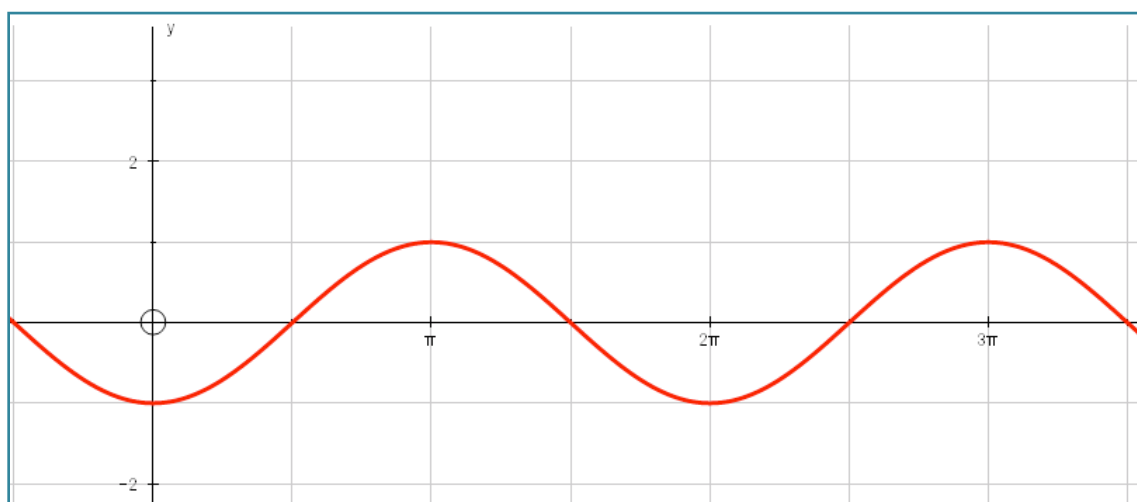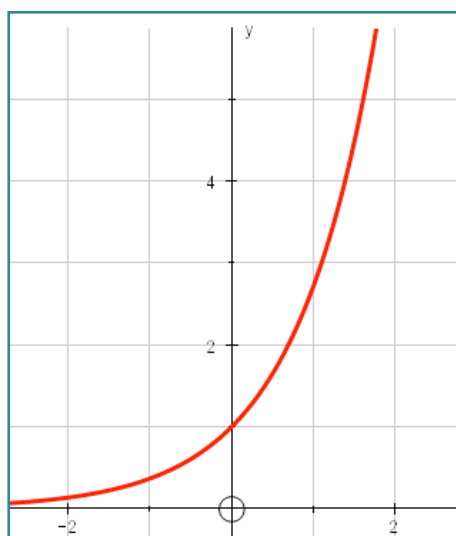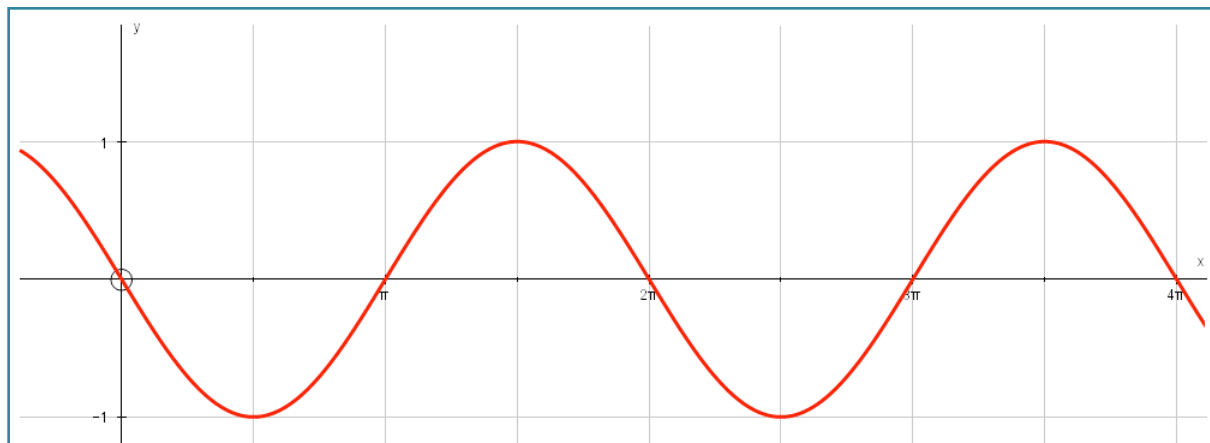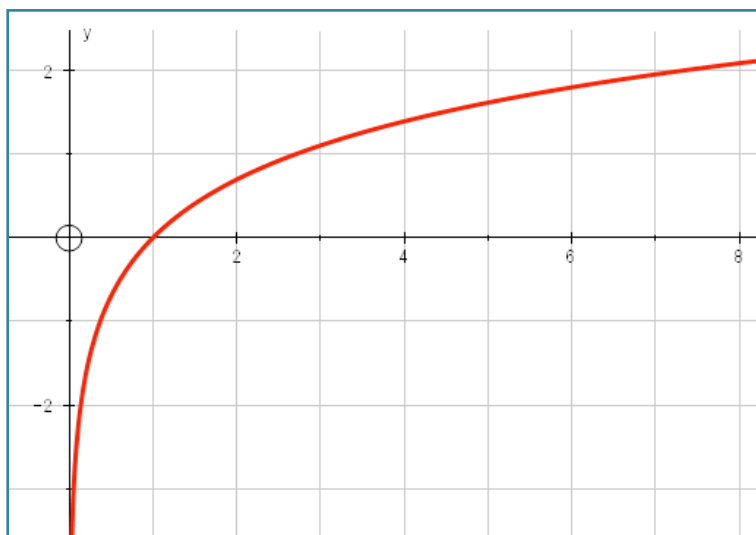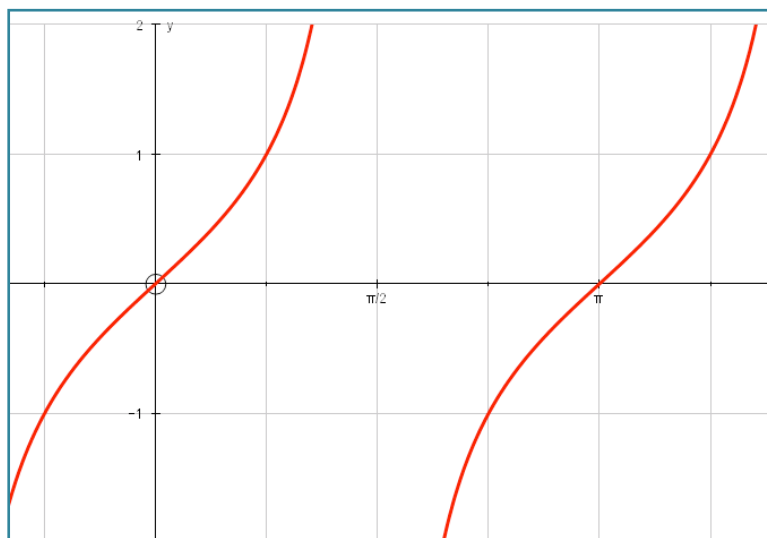| Statement	Graph number
is the integral of $-1/x^2$?	
is the gradient function of $1/x$?	
is the integral of $\sin(x)$?	
is the gradient function of $\cos(x)$?	
is the gradient function of $-\ln(x)$?	
is the integral of $\sin(\frac{1}{2}x)$?	
is the gradient function of $\sin^2(x)$?	
is the integral of e^x?	
is the gradient function of $\sin(x) + 2x$?	
is the integral of e^{2x}?	
is the gradient function of e^{2x}?	
is the integral of $1/x$?	
is the gradient function of $\tan(x)$?	
is the integral of $\sec(x)\tan(x)$?	
is the integral of $\cos(x)$?	
is the gradient function of $-\ln(\cos(x))$?	

Graphs

A.
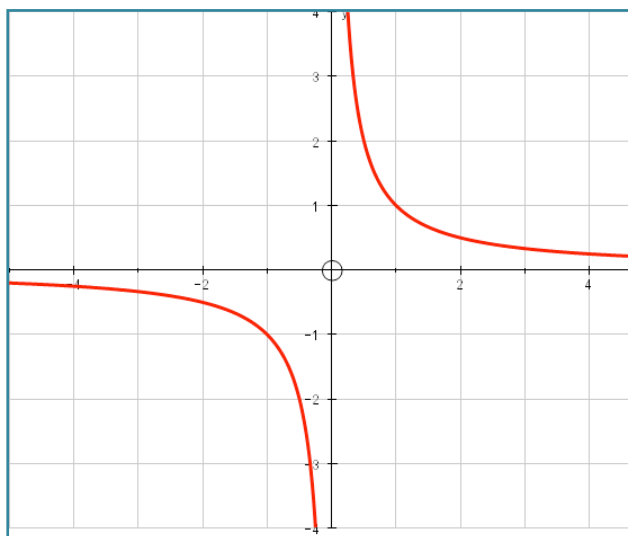
B.

C.

D.

E.

F.

G.
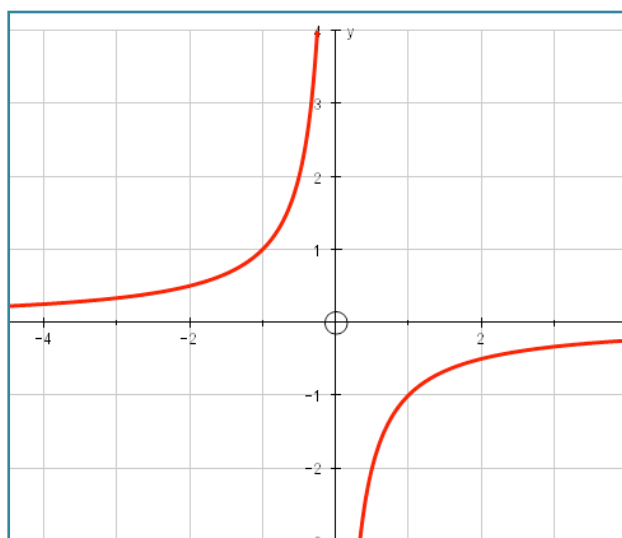
H.
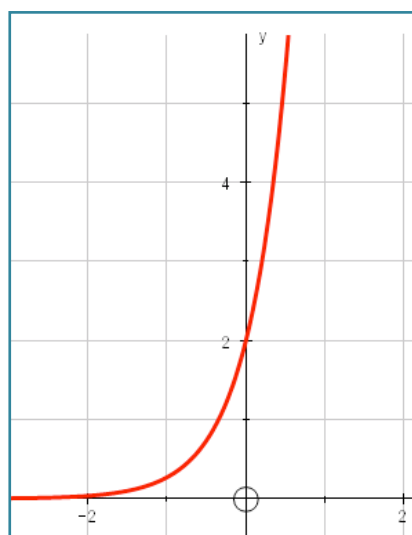
I.
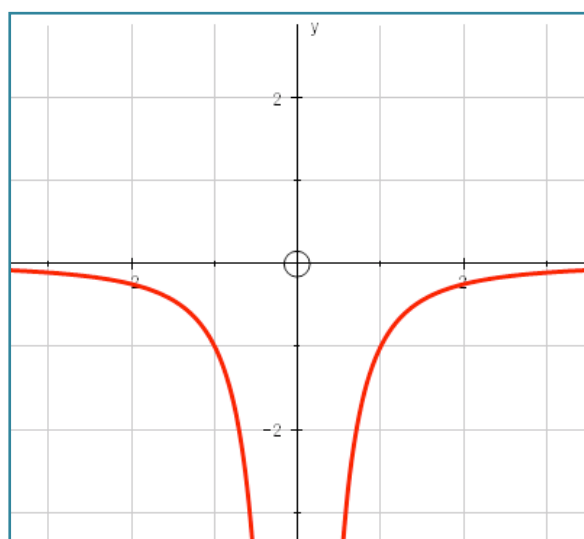
J.
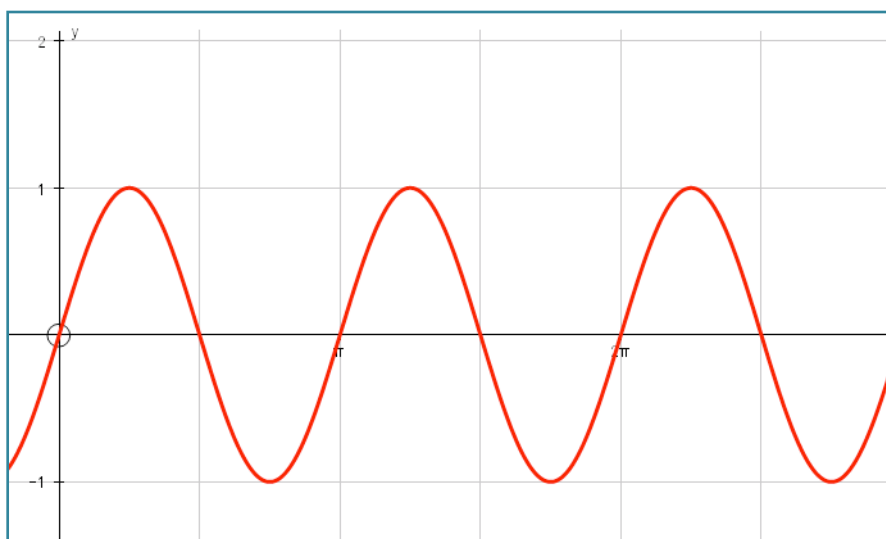
K.
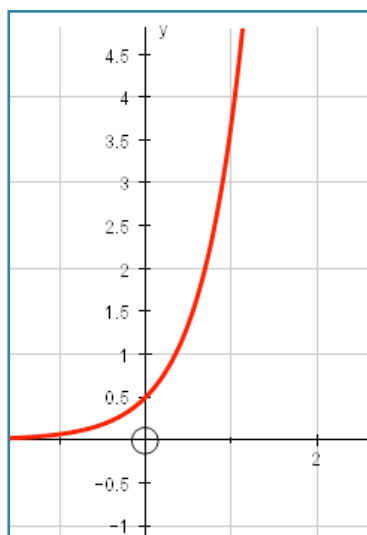
L.
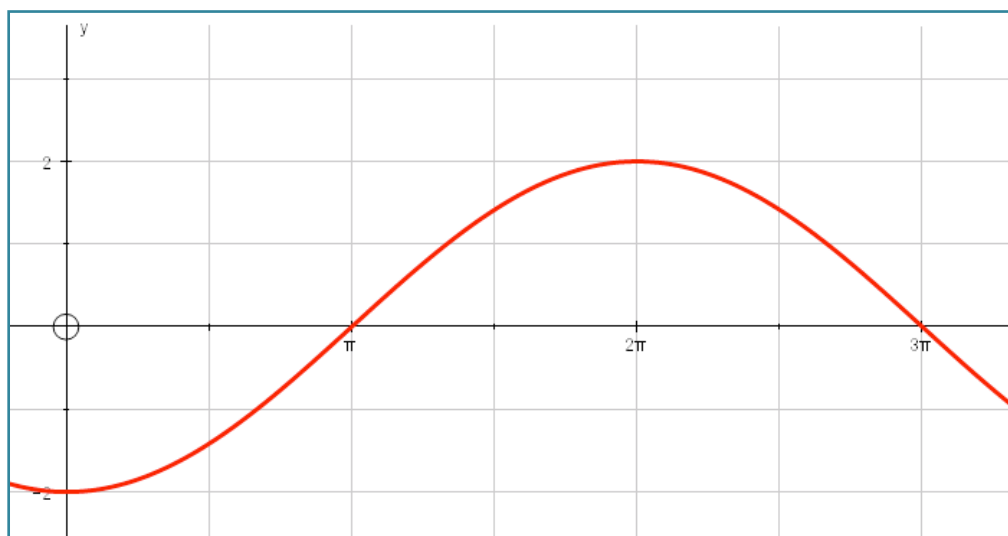
M.
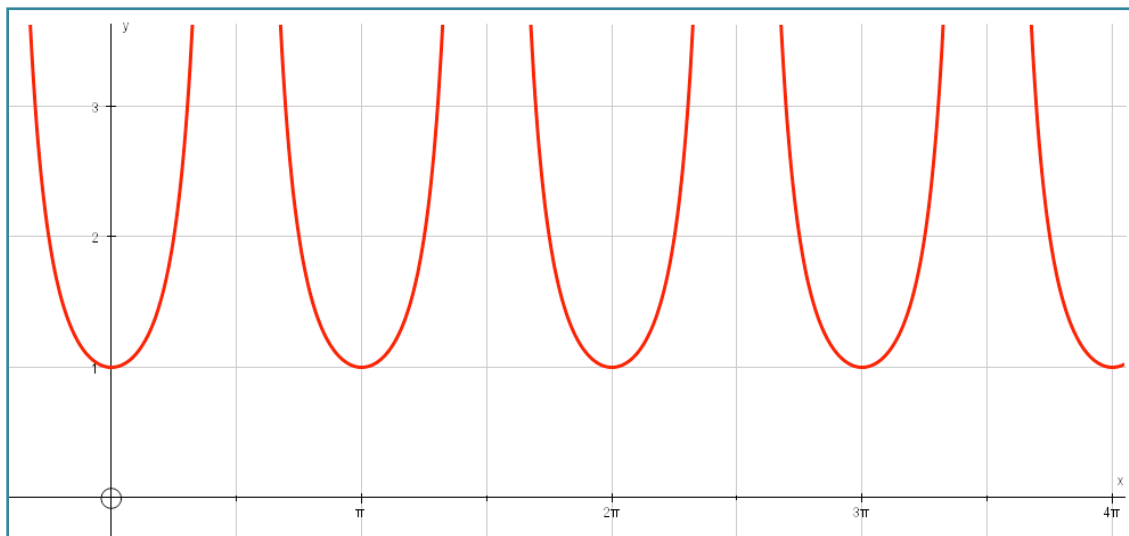
N.
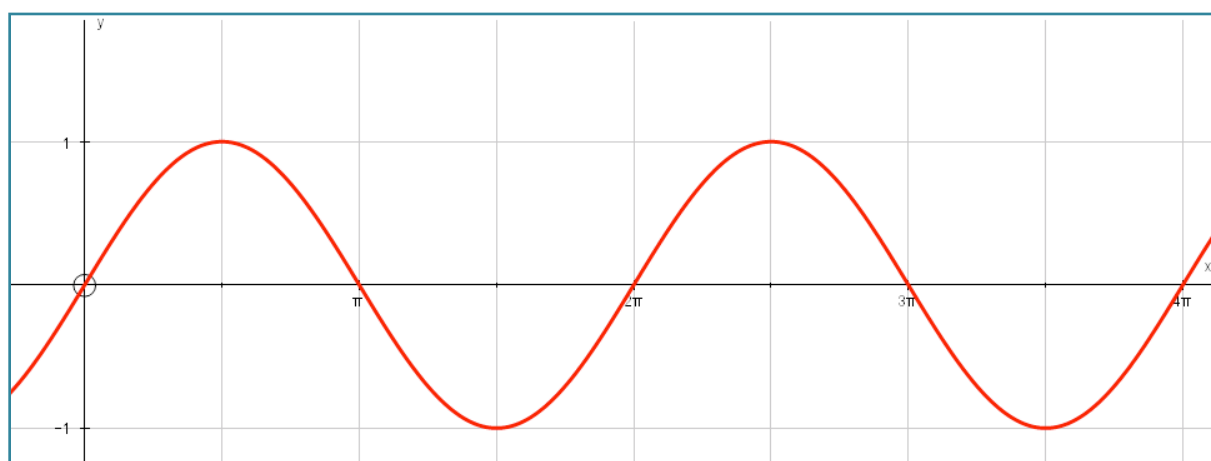
O.
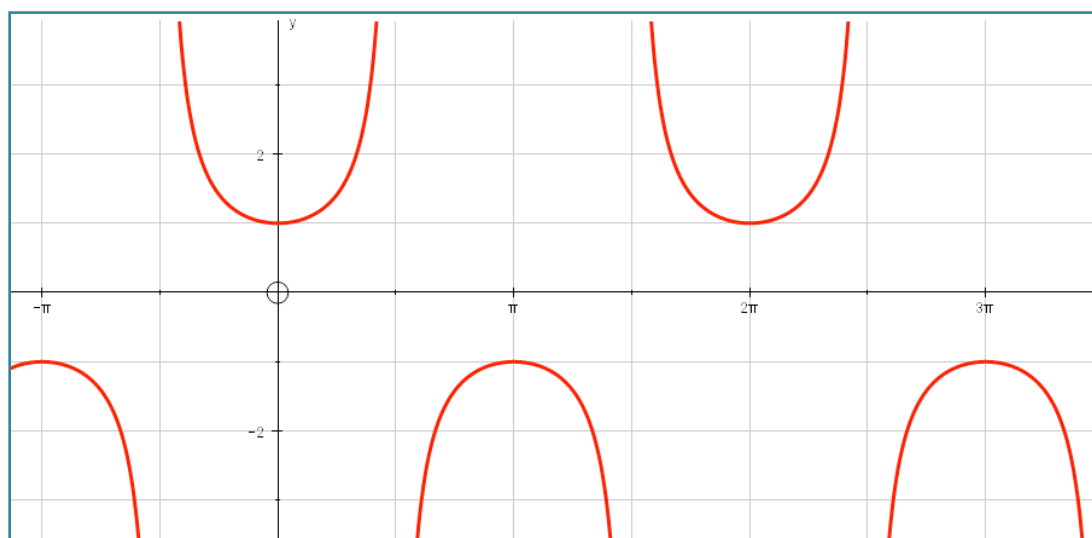
P.
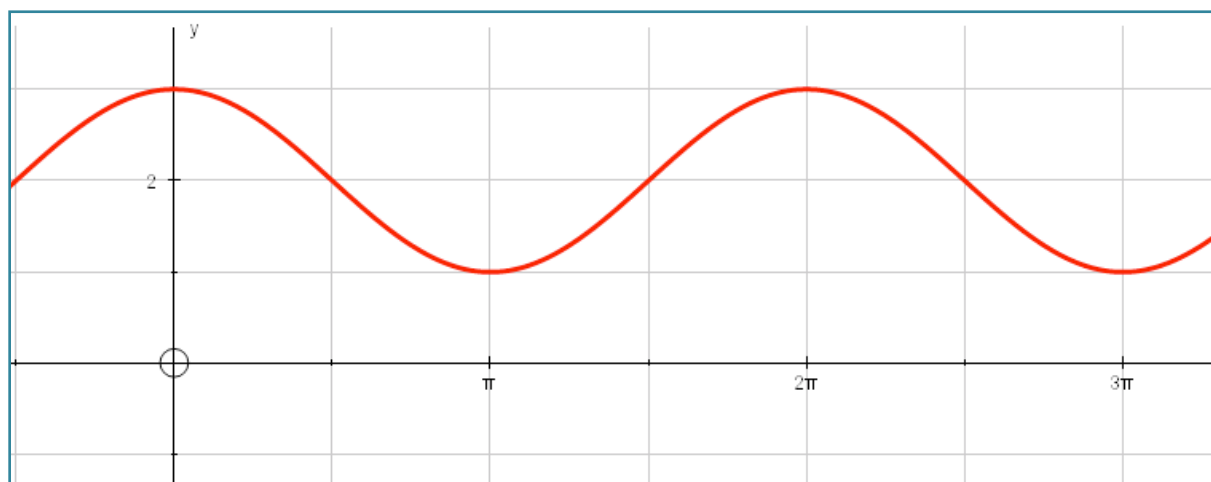
Solutions

Statement	Graph number
is the integral of -1/x^2?	A
has the gradient function of 1/x?	I
is the integral of sin(x)?	B
is the gradient function of cos(x)?	D
is the gradient function of -ln(x)?	G
is the integral of sin($\frac{1}{2}$x)?	L
is the gradient function of sin^2(x)?	J
is the integral of e^x?	C
is the gradient function of sin(x) + 2x?	P
is the integral of e^{2x}?	K
is the gradient function of e^{2x}?	H
is the integral of 1/x?	E
is the gradient function of tan(x)?	M
is the integral of sec(x)tan(x)?	O
is the integral of cos(x)?	N
is the gradient function of -ln(cos(x))?	F