

Apply

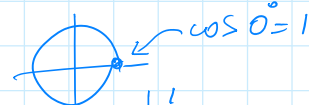
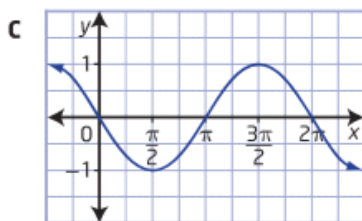
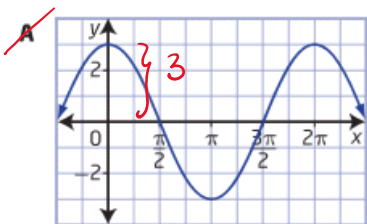
6. Match each function with its graph.

a) $y = 3 \cos x \rightarrow \textcircled{A}$

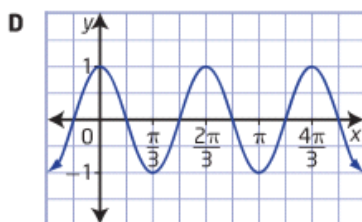
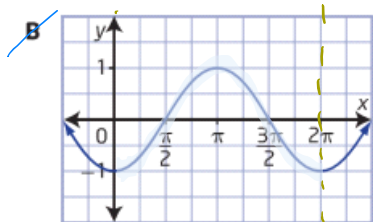
b) $y = \cos 3x$

c) $y = -\sin x$

d) $y = -\cos x \rightarrow \textcircled{B}$

 $\downarrow$ only one w/ amplitude 3 $\rightarrow \textcircled{A}$ $\cos x$ starts at 1

through
if a flip it
it will be at -1
become
peak when
flipped



you should only
have one peak
in $\cos x$
and in $-\cos x$.

could be B or D
but D is stretched.
so it's B

6. a) A

b) D

c) C

d) B

Apply

6. Match each function with its graph.

a) $y = 3 \cos x$

b) $y = \cos 3x$

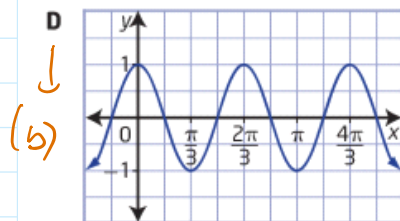
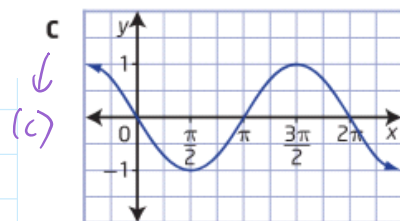
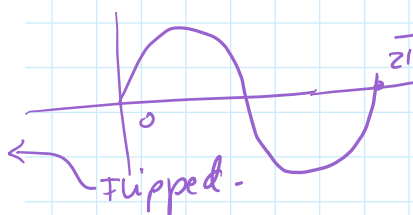
c) $y = -\sin x$

d) $y = -\cos x$

stretched horizontally

D**C**

not stretched

has 1 period
over $[0, 2\pi]$ normal $\sin x$: 2π :

too many peaks inside 2π
... it is 4 periods of $\cos x$ &

too many peaks inside 2π
which is the period of $\cos x$ &
 $\sin x$
this is for sure stretched. $\Rightarrow$ can only be (b)