

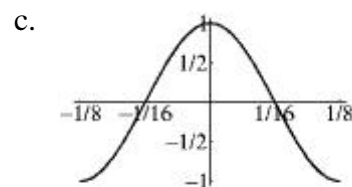
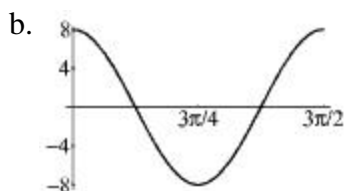
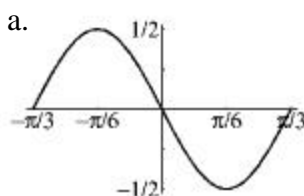
Basic Problems from the Internet Homework

All answers must be exact

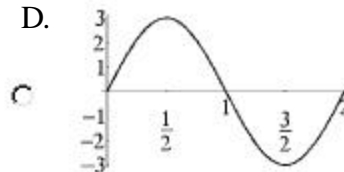
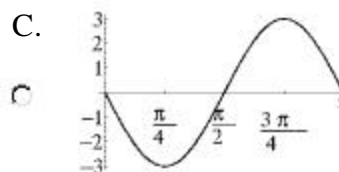
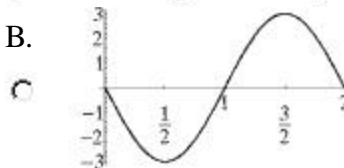
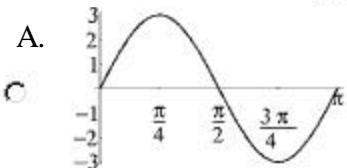
1. If $\tan \theta = -\sqrt{3}$ and $\pi/2 \leq \theta \leq \pi$, what is θ in radians?

2a. What is $\tan \pi/6$? b. What is $\tan 2\pi/3$? c. What is $\sin(-\pi/4)$?

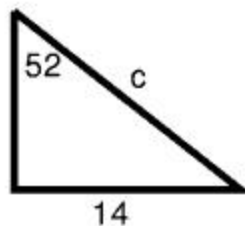
3. Give a formula for the following



4. Which of the following graphs best represents $y = -3 \sin(\pi x - \pi)$?



5. Which one of the following is true?



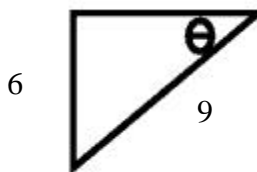
A. $c = \frac{14}{\cos 38^\circ}$

B. $c = \frac{14}{\cos 52^\circ}$

C. $c = \frac{14}{\sin 38^\circ}$

D. $c = \frac{\sin 38^\circ}{14}$

6. Find $\sin q$, $\cos q$, and $\tan q$



$\sin q =$

$\cos q =$

$\tan q =$

Answers (in form for the keypad)

1. $2\pi/3$

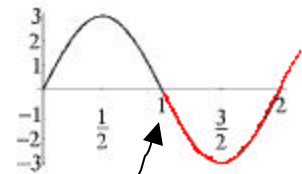
2. a. $\sqrt{3}$
 b. $-\sqrt{3}$
 c. $-\sqrt{2}/2$ or $-1/\sqrt{2}$

3. Other choices are possible, but these are the simplest answers:

- a. $-0.5\sin(3x)$
 b. $8\cos(4x/3)$ or $8\cos((4/3)x)$
 c. $\cos(8\pi x)$

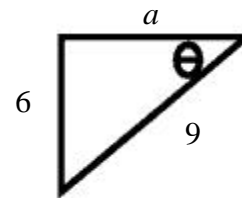
Note: For the test, you'd write these as
 $y = -0.5\sin(3x)$, $y = 8\cos(\frac{4}{3}x)$, $y = \cos 8\pi x$

4. $-3\sin(\mathbf{p}x - \mathbf{p}) = -3\sin(\mathbf{p}(x-1))$
 upside down sine with period $\frac{2\mathbf{p}}{\mathbf{p}} = 2$ starting at $x=1$. Choice D



5. Choice A.

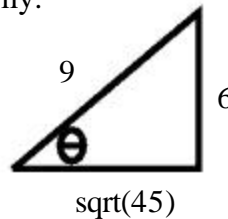
6. remaining side is a where $a^2 + 6^2 = 9^2$ so $a^2 = 45$ so $a = \sqrt{45}$.



Tip: redraw the triangle to find ratios more easily:

Then

$\sin \theta = 6/9$ or $2/3$
 $\cos \theta = \sqrt{45}/9$
 $\tan \theta = 6/\sqrt{45}$



You would type:

$2/3, \sqrt{45}/9, 6/\sqrt{45}$

or

$6/9, (45)^{(1/2)}/9, 6/(45)^{(1/2)}$

No need to reduce $\sqrt{45}$ for the computer, or even $6/9$ for that matter.