

# Graphing Trig Functions

Name:

Per:

1. Graph  $y = 5 \sin(x)$

In general  $y = a \sin(bx + c)$

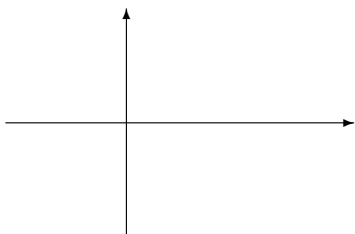
(a) amplitude= $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



4. Graph  $y = -3 \sin 2x - \pi$

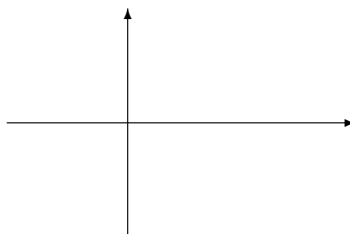
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



2. Graph  $y = -2 \cos(4x)$

In general  $y = a \sin(bx + c)$

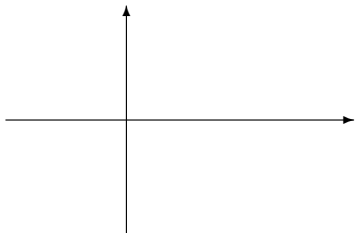
(a) amplitude= $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



5. Graph the function  $y = \cos\left(\frac{\pi}{2}x - \pi\right)$

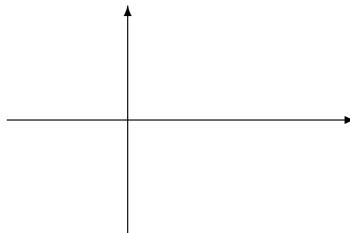
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



3. Graph  $y = 8 \sin(2x + \pi)$

In general  $y = a \sin(bx + c)$

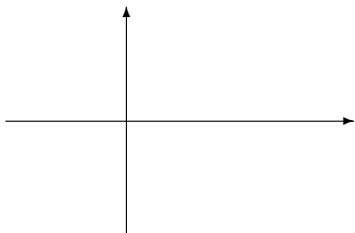
(a) amplitude= $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



6. Graph the function  $y = -3 \sin(4x - 2)$

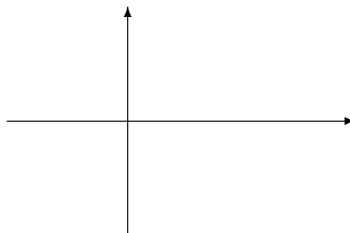
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



7. Graph the function  $y = -4 \sin\left(3x + \frac{3\pi}{2}\right)$

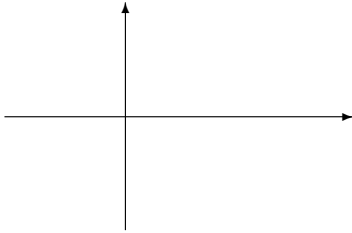
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



8. Graph the function  $y = 5 \sin(4x - \pi)$

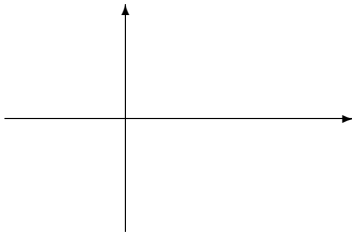
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



9. Graph the function  $y = -2 \cos\left(2x - \frac{\pi}{2}\right)$

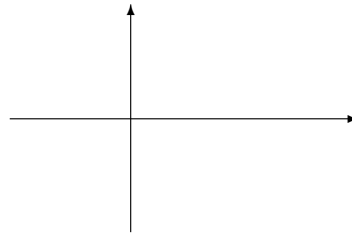
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



10. Graph the function  $y = 3 \cos\left(-2x + \frac{\pi}{2}\right)$

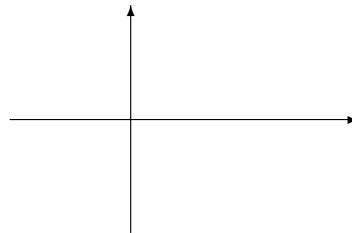
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



11. Where are the zeros of  $y = \cos(x)$ ?

(a) Integer multiples of  $\pi$

(b) Odd multiples of  $\frac{\pi}{2}$ ?

12. Where are the zeros of  $y = \sin(x)$ ?

(a) Integer multiples of  $\pi$

(b) Odd multiples of  $\frac{\pi}{2}$ ?

13. Graph  $y = 5 \csc(x)$

In general  $y = a \sin(bx + c)$

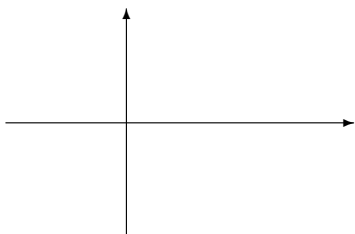
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(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



16. Graph  $y = -3 \csc 2x - \pi$

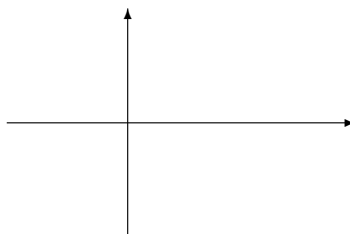
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



14. Graph  $y = -2 \sec(4x)$

In general  $y = a \sin(bx + c)$

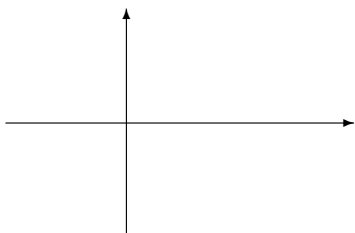
(a) amplitude= $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



17. Graph the function  $y = \sec\left(\frac{\pi}{2}x - \pi\right)$

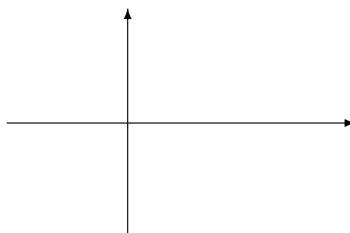
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



15. Graph  $y = 8 \csc(2x + \pi)$

In general  $y = a \sin(bx + c)$

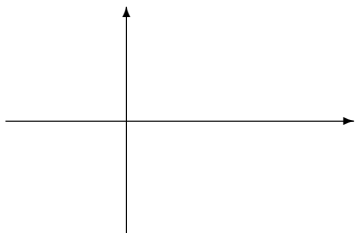
(a) amplitude= $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



18. Graph the function  $y = -3 \csc(4x - 2)$

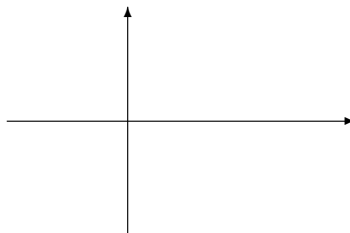
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



19. Graph the function  $y = -4 \csc\left(3x + \frac{3\pi}{2}\right)$

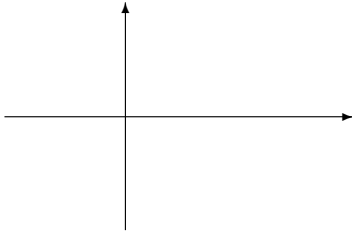
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



20. Graph the function  $y = 5 \csc(4x - \pi)$

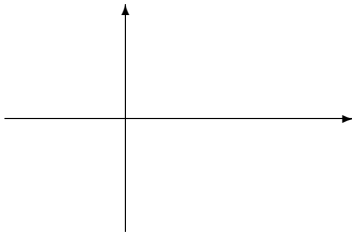
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



21. Graph the function  $y = -2 \sec\left(2x - \frac{\pi}{2}\right)$

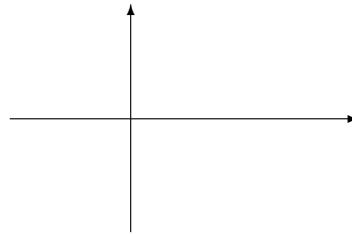
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



22. Graph the function  $y = 3 \sec\left(-2x + \frac{\pi}{2}\right)$

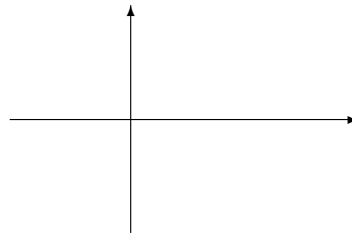
(a)  $|a| =$

(b)  $b =$

(c)  $c =$

(d) Period:  $\frac{2\pi}{b} =$

(e) Phase shift starting point:  $-\frac{c}{b} =$



23. Where are the vertical asymptotes of  $y = \sec(x)$ ?

(a) Integer multiples of  $\pi$

(b) Odd multiples of  $\frac{\pi}{2}$ ?

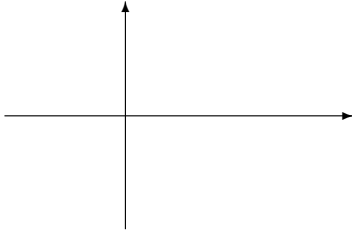
24. Where are the vertical asymptotes of  $y = \csc(x)$ ?

(a) Integer multiples of  $\pi$

(b) Odd multiples of  $\frac{\pi}{2}$ ?

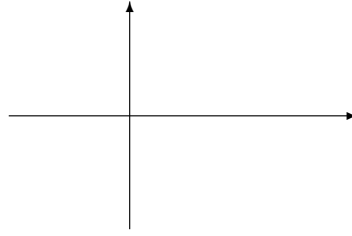
25. Graph the function  $y = \tan(x)$

- (a)  $|a| =$
- (b)  $b =$
- (c)  $c =$
- (d) Period:  $\frac{2\pi}{b} =$
- (e) Phase shift starting point:  $-\frac{c}{b} =$



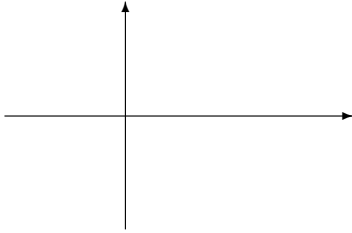
28. Graph the function  $y = \cot(2x)$

- (a)  $|a| =$
- (b)  $b =$
- (c)  $c =$
- (d) Period:  $\frac{2\pi}{b} =$
- (e) Phase shift starting point:  $-\frac{c}{b} =$



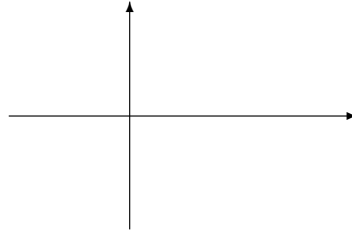
26. Graph the function  $y = \cot(x)$

- (a)  $|a| =$
- (b)  $b =$
- (c)  $c =$
- (d) Period:  $\frac{2\pi}{b} =$
- (e) Phase shift starting point:  $-\frac{c}{b} =$



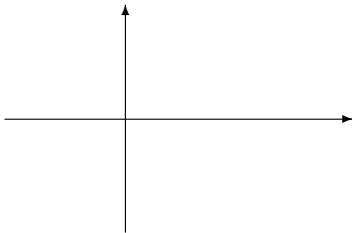
29. Graph the function  $y = \tan(2x + \pi)$

- (a)  $|a| =$
- (b)  $b =$
- (c)  $c =$
- (d) Period:  $\frac{2\pi}{b} =$
- (e) Phase shift starting point:  $-\frac{c}{b} =$



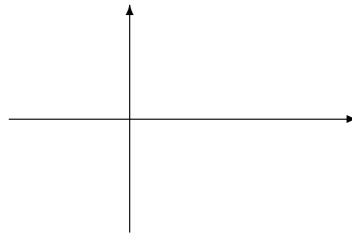
27. Graph the function  $y = \tan(2x)$

- (a)  $|a| =$
- (b)  $b =$
- (c)  $c =$
- (d) Period:  $\frac{2\pi}{b} =$
- (e) Phase shift starting point:  $-\frac{c}{b} =$



30. Graph the function  $y = \cot(2x + \pi)$

- (a)  $|a| =$
- (b)  $b =$
- (c)  $c =$
- (d) Period:  $\frac{2\pi}{b} =$
- (e) Phase shift starting point:  $-\frac{c}{b} =$



31. Where are the zeros of  $y = \tan(x)$ ?

- (a) Integer multiples of  $\pi$
- (b) Odd multiples of  $\frac{\pi}{2}$ ?

32. Where are the vertical asymptotes of  $y = \tan(x)$ ?

- (a) Integer multiples of  $\pi$
- (b) Odd multiples of  $\frac{\pi}{2}$ ?

33. Where are the zeros of  $y = \cot(x)$ ?

- (a) Integer multiples of  $\pi$
- (b) Odd multiples of  $\frac{\pi}{2}$ ?

34. Where are the vertical asymptotes of  $y = \cot(x)$ ?

- (a) Integer multiples of  $\pi$
- (b) Odd multiples of  $\frac{\pi}{2}$ ?