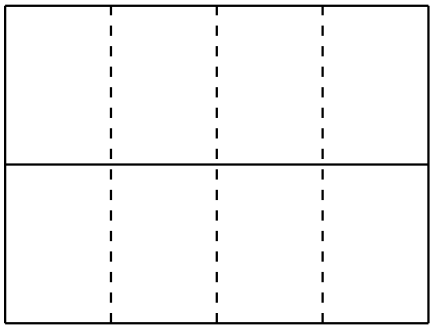
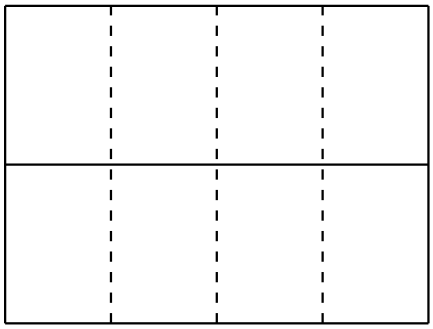
Graphing Trig Functions

Name: Per:

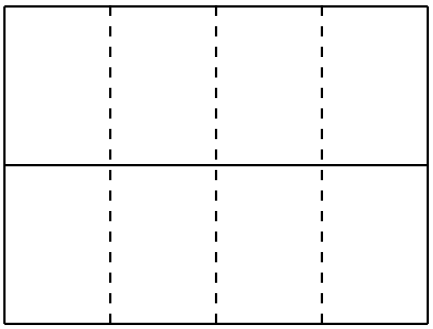
1. Graph $y = 5\sin(x)$
   In general $y = a\sin(bx + c) + d$
   (a) amplitude=$|a|$ =
   (b) b =
   (c) c =
   (d) Period:$\dfrac{2\pi}{b}$ =
   (e) Phase shift starting point: $-\dfrac{c}{b}$ =



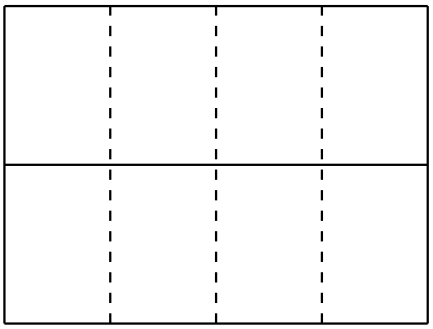
2. Graph $y = -2\cos(4x)$
   In general $y = a\cos(bx + c) + d$
   (a) amplitude=$|a|$ =
   (b) b =
   (c) c =
   (d) Period:$\dfrac{2\pi}{b}$ =
   (e) Phase shift starting point: $-\dfrac{c}{b}$ =



3. Graph $y = 8\sin(2x + \pi)$
   In general $y = a\sin(bx + c)$
   (a) amplitude=$|a|$ =
   (b) b =
   (c) c =
   (d) Period:$\dfrac{2\pi}{b}$ =
   (e) Phase shift starting point: $-\dfrac{c}{b}$ =

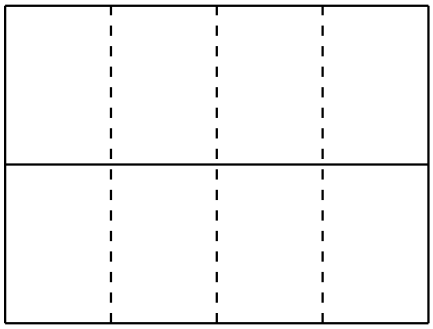


4. Graph $y = -3\sin(2x - \pi) + 1$
   (a) $|a|$ =
   (b) b =
   (c) c =
   (d) Period:$\dfrac{2\pi}{b}$ =
   (e) Phase shift starting point: $-\dfrac{c}{b}$ =



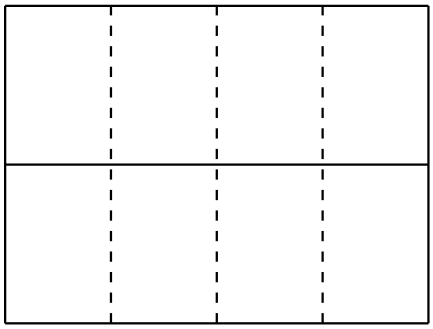
5. Graph the function $y = \cos\left(\frac{\pi}{2}x - 1\right) + 2$

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



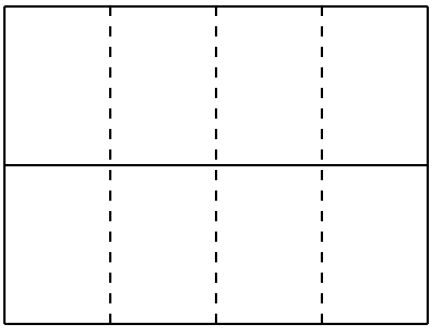
6. Graph the function $y = -3\sin(4x - 2) - 2$

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



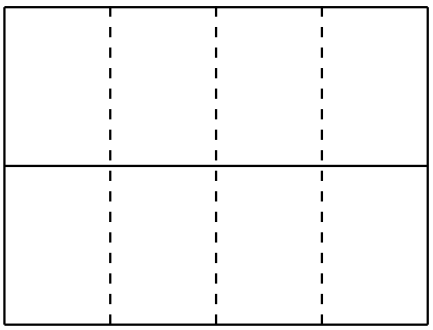
7. Graph the function $y = -4\sin(3\pi x + 2) - 3$

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



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

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



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

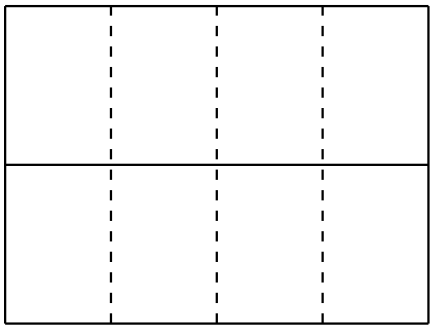
(a) $|a| =$

(b) $b =$

(c) $c =$

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

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



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

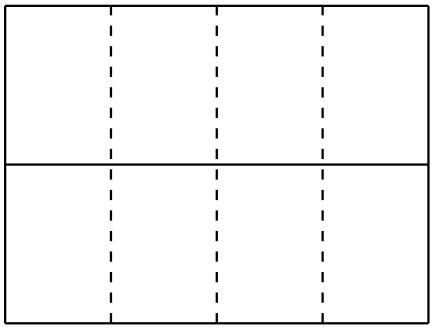
(a) $|a| =$

(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 π

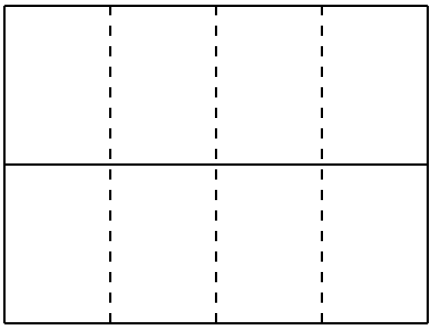
(b) Odd multiples of $\frac{\pi}{2}$?

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

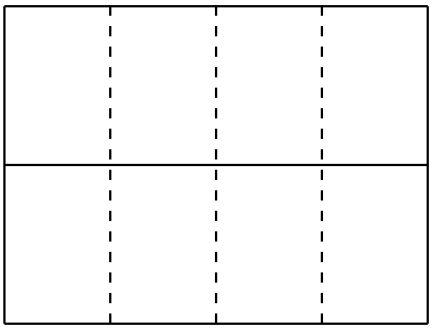
(a) Integer multiples of π

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

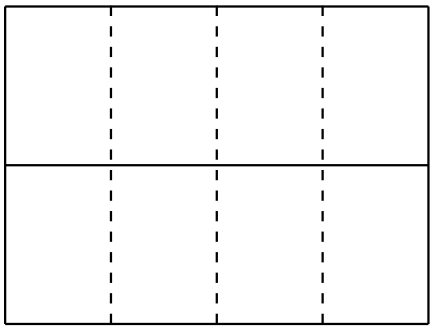
13. Graph $y = \csc(x)$



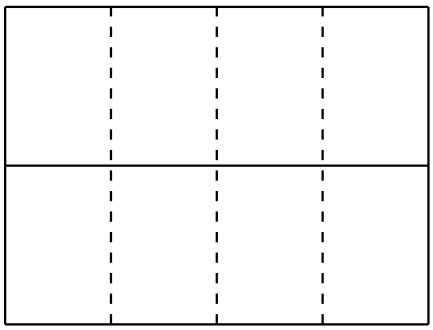
14. Graph $y = \sec(x)$



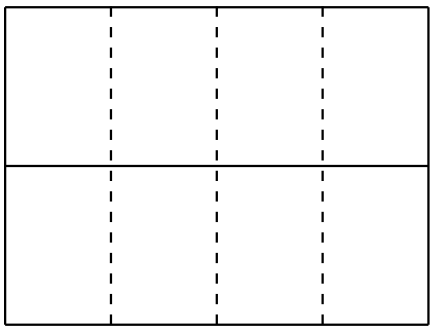
15. Graph $y = \tan(x)$



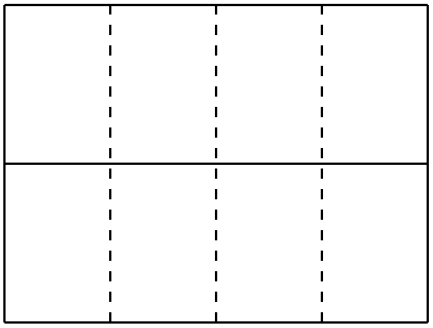
16. Graph $y = \cot(x)$



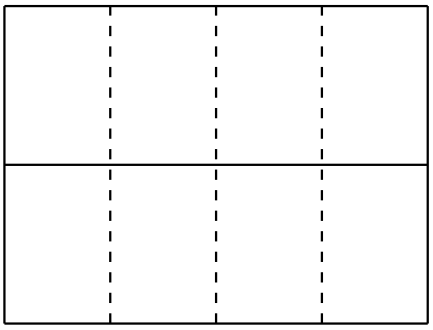
17. Graph $y = 5\csc(x)$
    In general $y = a\sin(bx + c)$
    (a) amplitude=$|a|$ =
    (b) b =
    (c) c =
    (d) Period:$\dfrac{2\pi}{b}$ =
    (e) Phase shift starting point: $-\dfrac{c}{b}$ =



18. Graph $y = -2\sec(4x)$
    In general $y = a\sin(bx + c)$
    (a) amplitude=$|a|$ =
    (b) b =
    (c) c =
    (d) Period:$\dfrac{2\pi}{b}$ =
    (e) Phase shift starting point: $-\dfrac{c}{b}$ =

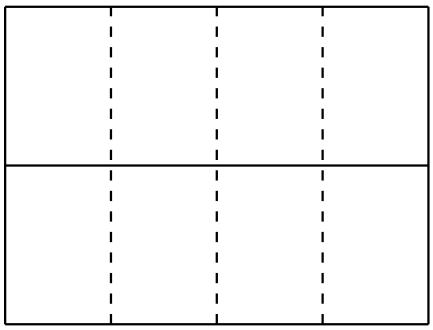


19. Graph $y = 8\csc(2x + \pi)$
    In general $y = a\sin(bx + c)$
    (a) amplitude=$|a|$ =
    (b) b =
    (c) c =
    (d) Period:$\dfrac{2\pi}{b}$ =
    (e) Phase shift starting point: $-\dfrac{c}{b}$ =



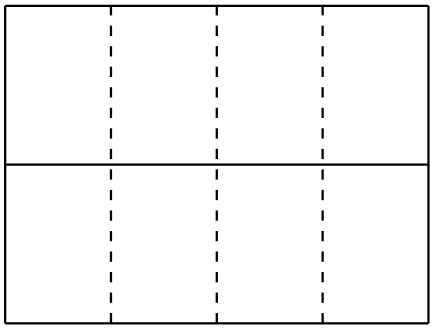
20. Graph $y = -3\csc(2x - \pi)$

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



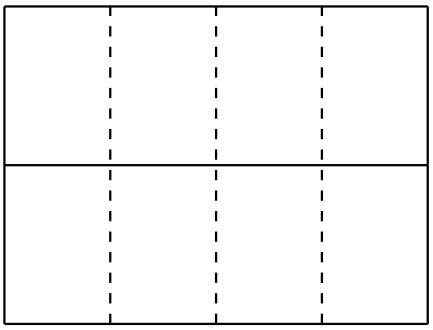
21. Graph the function $y = \sec\left(\dfrac{\pi}{2}x - \pi\right)$

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



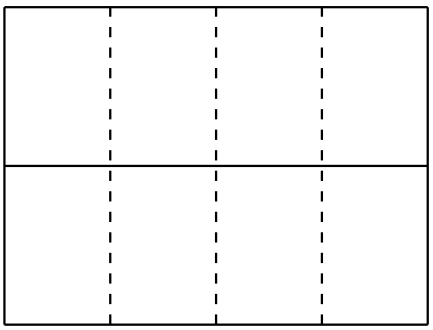
22. Graph the function $y = -3\csc(4x - 2)$

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



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

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



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

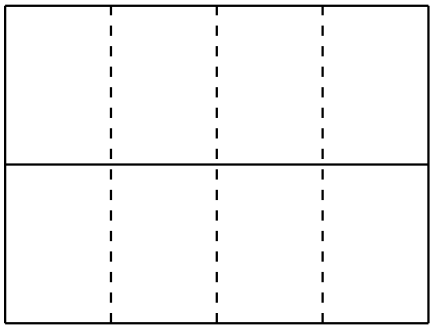
(a) $|a| =$

(b) $b =$

(c) $c =$

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

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



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

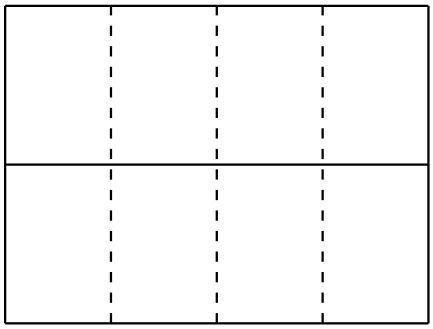
(a) $|a| =$

(b) $b =$

(c) $c =$

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

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



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

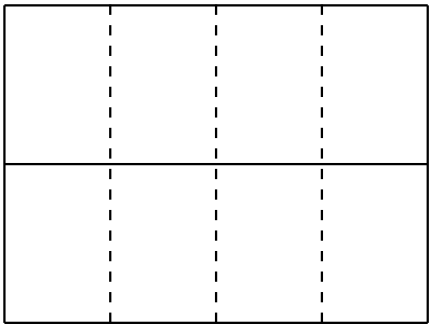
(a) $|a| =$

(b) $b =$

(c) $c =$

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

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



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

(a) Integer multiples of π

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

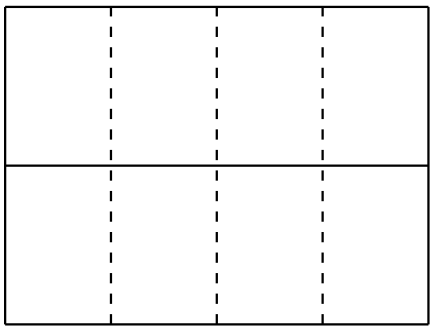
28. Where are the vertical asymptotes of $y = \csc(x)$?

(a) Integer multiples of π

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

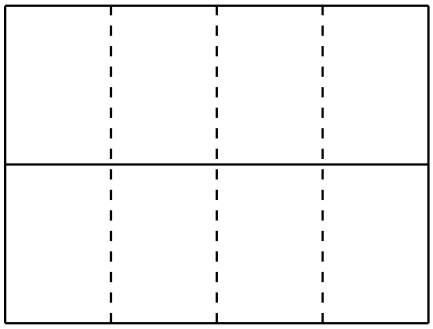
29. Graph the function $y = \tan(x)$

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



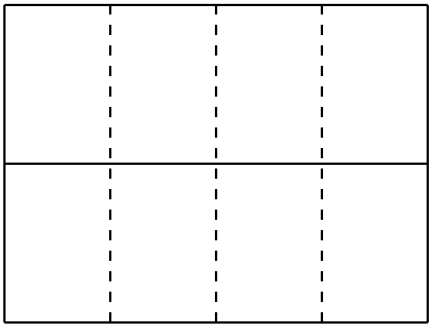
30. Graph the function $y = \cot(x)$

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



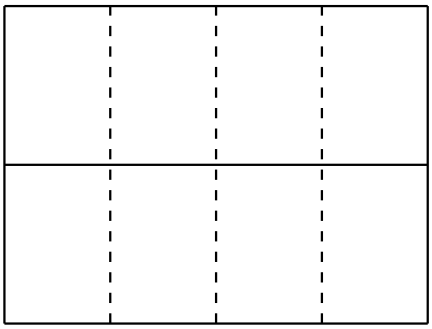
31. Graph the function $y = \tan(2x)$

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



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

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



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

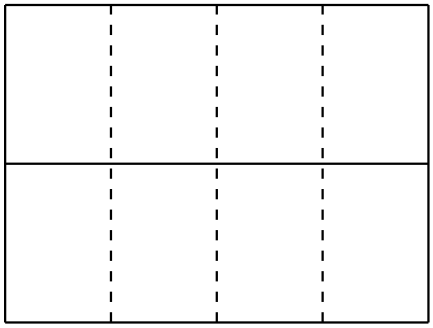
(a) $|a| =$

(b) $b =$

(c) $c =$

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

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



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

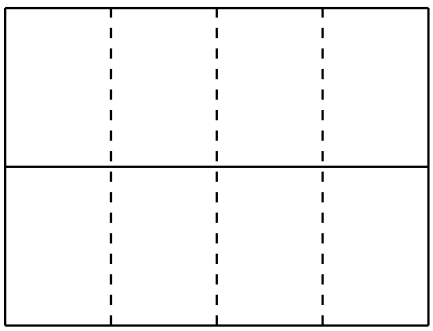
(a) $|a| =$

(b) $b =$

(c) $c =$

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

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



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

(a) Integer multiples of π

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

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

(a) Integer multiples of π

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

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

(a) Integer multiples of π

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

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

(a) Integer multiples of π

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