**Find the amplitude and the period and sketch the graph of the equation.**

1. (a) y = 4 sin x (b) y = sin 4x

 

(c) y = sin x (d) y = sin x

 

(e) y = -4 sin x (f) y = sin (-4x)

 

(g) y = 3 sin x (h) y = sin 2x

 

**Find the amplitude and the period and sketch the graph of the equation.**

2. (a) y = 3 cos x (b) y = cos 3x

 

(c) y = cos x (d) y = cos x

 

(e) y = 3 cos x (f) y = cos 2x

 

(g) y = -3 cos x (h) y = cos (-3x)

 

**Find the amplitude, the period, and the phase shift and sketch the graph of the equation.**

3. y = sin 4. y = 3 sin

 

5. y = cos 6. y = 4 cos

 

7. y = sin (2x - π) + 1 8. y = - cos (3x + π) - 2

 

9. y = -2 sin (3x - π) 10. y = sin

 

11. y = 6 sin πx 12. y = 2 cos

 

13. y = 14. y = 5 sin (3x - )

 

15. y = 3 cos 16. y = -5 cos

 

17. y = 3 cos (πx + 4π) 18. y = - sin

 