A For Exercises 1–4, sketch and label the graphs given on a single set of axes.

1. $y = \cos x$, $y = 3 \cos x$, $y = \frac{1}{3} \cos x$ 2. $y = \sin x$, $y = 4 \sin x$, $y = -4 \sin x$

3. $y = \sin x$, $y = \sin \frac{1}{2}x$ 4. $y = \cos x$, $y = \cos 3x$

Give the amplitude and period of each function. Then sketch its graph.

5. $y = 2 \sin 3x$ 6. $y = 4 \cos 2x$ 7. $y = -2 \cos 2t$
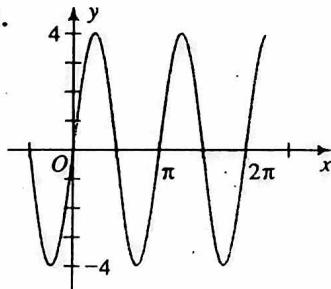
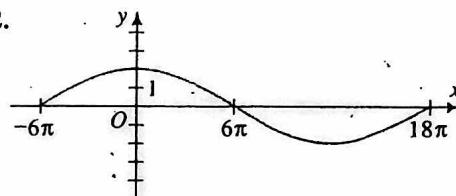8. $y = -4 \sin \frac{t}{3}$ 9. $y = \frac{1}{2} \cos 2\pi t$ 10. $y = 1.5 \sin \frac{\pi}{2}x$

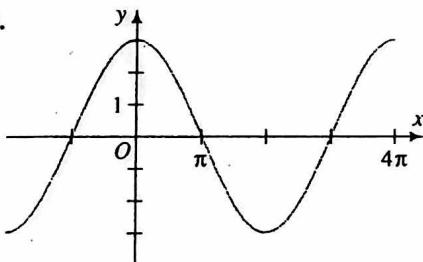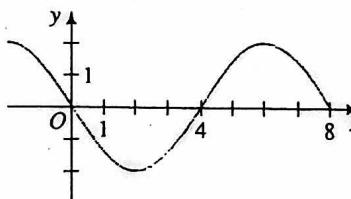Give the amplitude, period, and an equation for each curve.

11.

12.

13.

14.

15.

16.