

2A L 3.6 Determine if each function x given below is periodic, and if it is, find its fundamental period.

(a) $x(t) = \cos(2\pi t) + \sin(5t)$;

(b) $x(t) = [\cos(4t - \frac{\pi}{3})]^2$;

(c) $x(t) = e^{j2\pi t} + e^{j3\pi t}$;

(d) $x(t) = 1 + \cos(2t) + e^{j5t}$;

(e) $x(t) = \cos(14t - 1) + \cos(77t - 3)$;

(f) $x(t) = \cos(et) + \sin(42t)$;

(g) $x(t) = |\sin(\pi t)|$; and

(h) $x(t) = \cos(6\sqrt{2}t) + \sin(15\sqrt{2}t)$.