

Chapter 9, Solution 76.

(a) $v_2 = 8 \sin 5t = 8 \cos(5t - 90^\circ)$
 v_1 leads v_2 by 70° .

(b) $v_2 = 6 \sin 2t = 6 \cos(2t - 90^\circ)$
 v_1 leads v_2 by 180° .

(c) $v_1 = -4 \cos 10t = 4 \cos(10t + 180^\circ)$
 $v_2 = 15 \sin 10t = 15 \cos(10t - 90^\circ)$
 v_1 leads v_2 by 270° .