Step 1

$D[V_2][\emptyset] = 3$

$D[V_3][\emptyset] = 4$

$D[V_4][\emptyset] = 6$

Step 2 $7 + 4 = 11$

$D[V_2][\{V_3\}] = 11$ is $w[2][3] + D[V_3][\emptyset]$

$D[V_2][\{V_4\}] = 14$

$D[V_3][\{V_2\}] = 14$

$D[V_3][\{V_4\}] = 16$

$D[V_4][\{V_2\}] = 9$

$D[V_4][\{V_3\}] = 11$

Step 3

$D[V_2][\{V_3, V_4\}]$

$= \min(w[2][3] + D[3][\{V_4\}],$
$w[2][4] + D[4][\{V_3\}])$

$= \min(7 + 16, 8 + 11) = 19$
$23, 19$

$D[V_3][\{V_2, V_4\}]$

$= \min(w[3][2] + D[2][\{V_4\}],$
$w[3][4] + D[4][\{V_2\}])$

$= \min(11 + 14, 10 + 9) = 19$
$25, 19$

$D[V_4][\{V_2, V_3\}]$

$= \min(w[4][2] + D[2][\{V_3\}],$
$w[4][3] + D[3][\{V_2\}])$

$= \min(6 + 11, 7 + 14)$
$17, 21$

17

Step 4

$$\min_{j : v_j \in \{v_2, v_3, v_4\}} \left( w[1][j] + D[v_j][\{v_2, v_3, v_4\} - \{v_j\}] \right)$$

$$\min \begin{cases} w[1][2] + D[v_2][\{v_3, v_4\}], \\ w[1][3] + D[v_3][\{v_2, v_4\}], \\ w[1][4] + D[v_4][\{v_2, v_3\}] \end{cases}$$

$$= \min \begin{cases} 8 + 19, \\ 13 + 19, \\ 18 + 17 \end{cases}$$

$$= \min (27, 32, 35)$$

Final Answer : 27

$V_1 - V_2 - V_4 - V_3 - V_1$