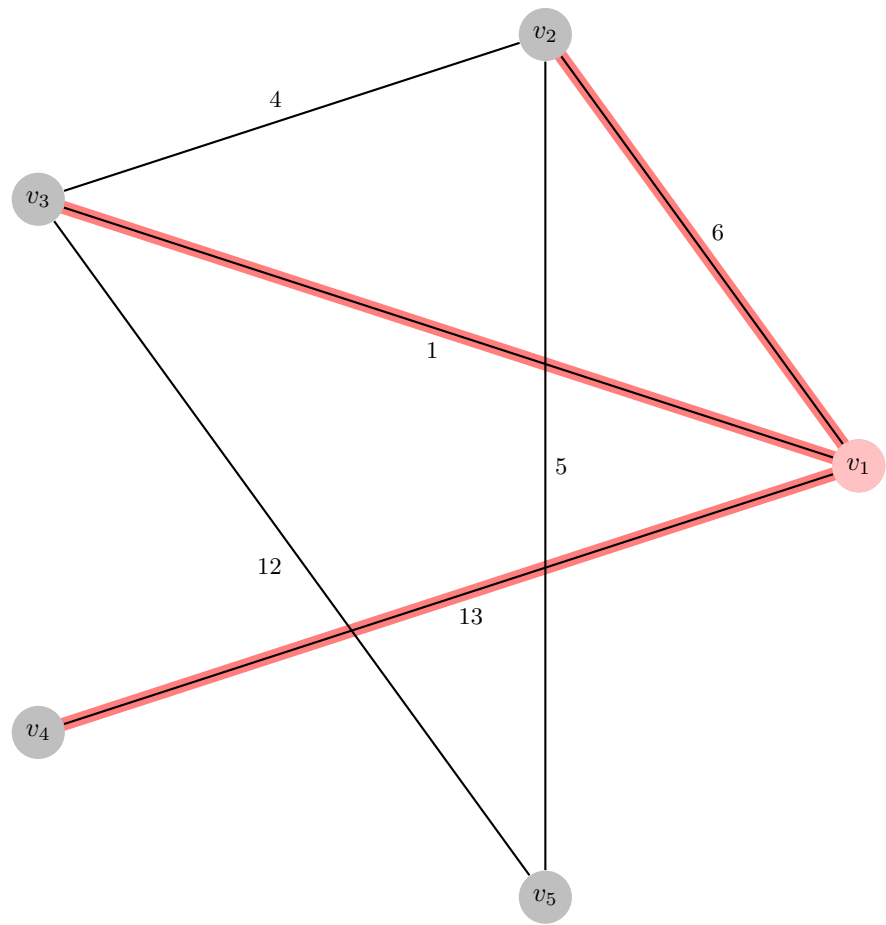
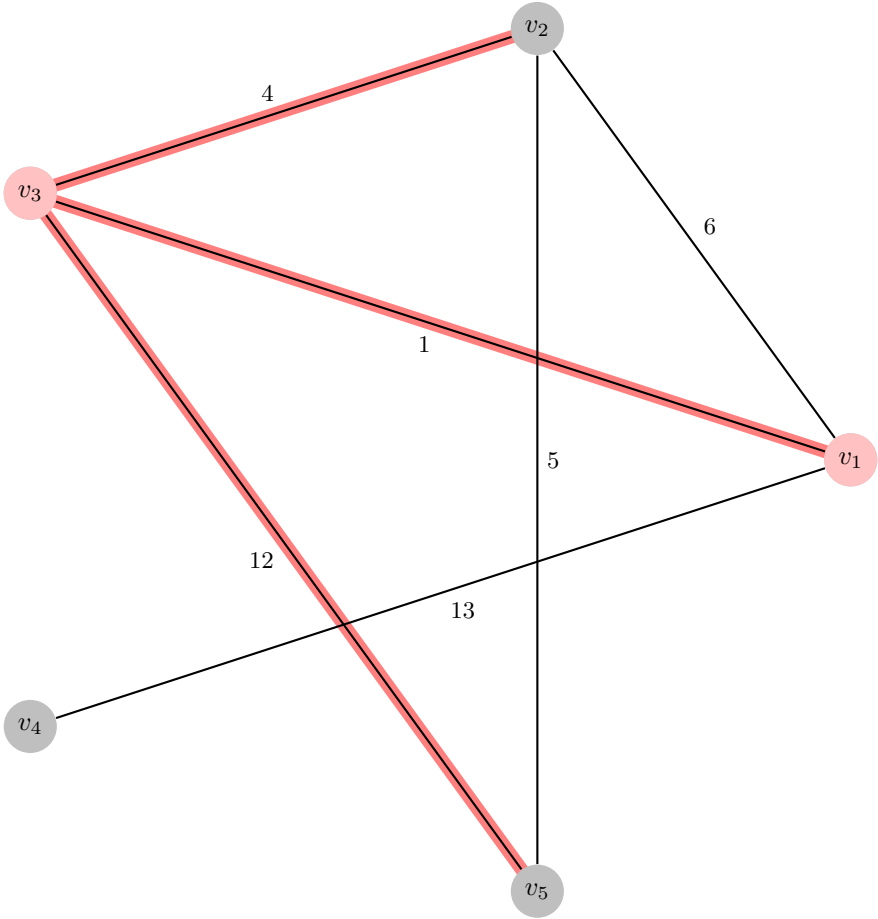


vertex	shortest path	length
v_2	$v_1 \rightarrow v_2$	6
v_3	$v_1 \rightarrow v_3$	1
v_4	$v_1 \rightarrow v_4$	13
v_5	$null$	∞



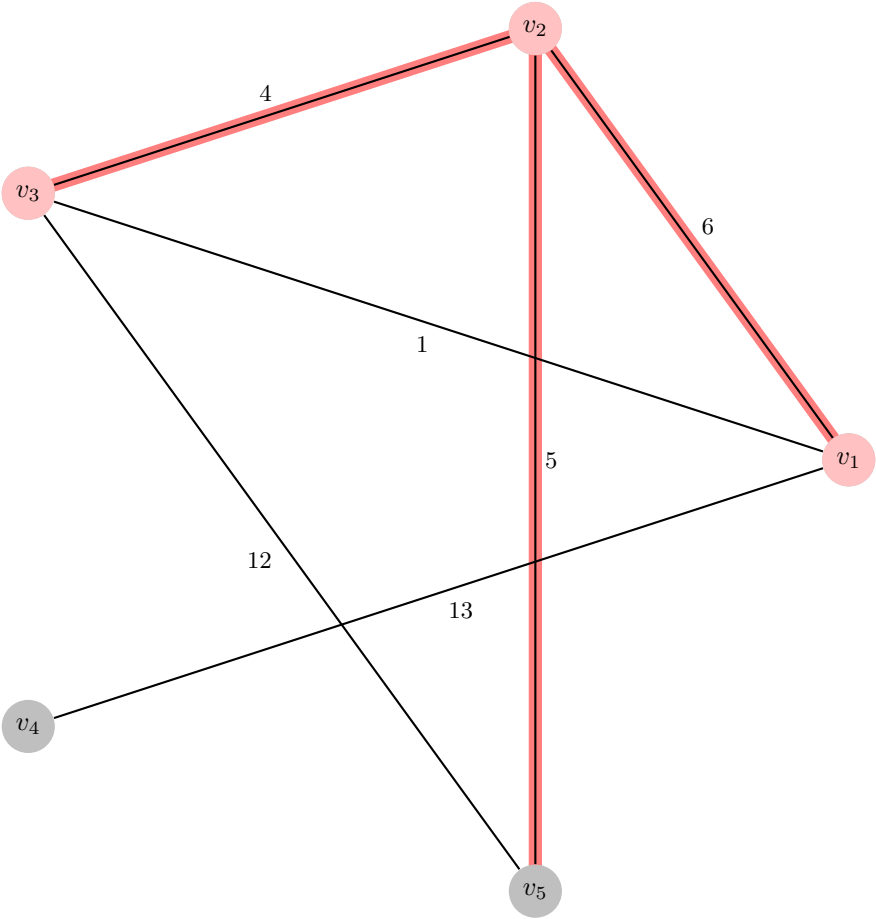
Vertices explored from v_1 . Next vertex is v_3 . Edge relaxations shown in **bold**.

vertex	shortest path	length
v_2	$v_1 \rightarrow v_3 \rightarrow v_2$	$5 = \min\{\mathbf{6}, 1+4\}$
v_3	$v_1 \rightarrow v_3$	1
v_4	$v_1 \rightarrow v_4$	13
v_5	$v_1 \rightarrow v_3 \rightarrow v_5$	$13 = \min\{\infty, 1+12\}$



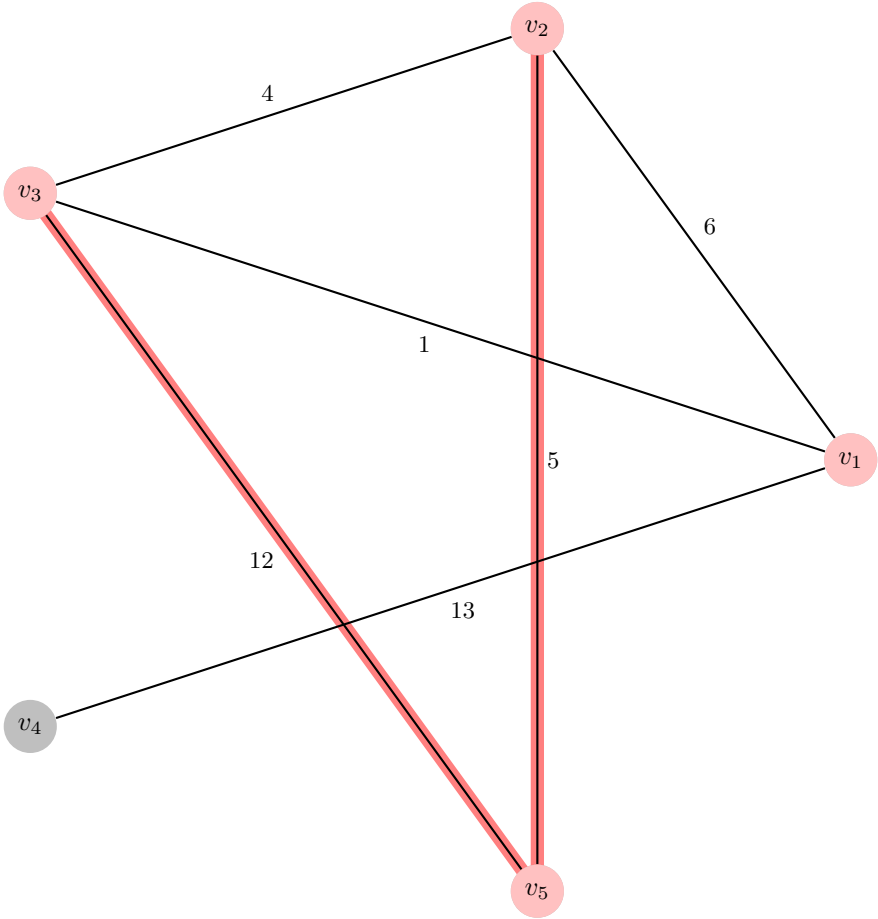
Vertices explored from v_3 . Next vertex is v_2 . Edge relaxations shown in **bold**.

vertex	shortest path	length
v_2	$v_1 \rightarrow v_3 \rightarrow v_2$	5
v_3	$v_1 \rightarrow v_3$	$1 = \min\{1, 5+4\}$
v_4	$v_1 \rightarrow v_4$	13
v_5	$v_1 \rightarrow v_3 \rightarrow v_2 \rightarrow v_5$	$10 = \min\{\mathbf{13}, \mathbf{5+5}\}$



Vertices explored from v_2 . Next vertex is v_5 . Edge relaxations shown in **bold**.

vertex	shortest path	length
v_2	$v_1 \rightarrow v_3 \rightarrow v_2$	$5 = \min\{5, 10+5\}$
v_3	$v_1 \rightarrow v_3$	$1 = \min\{1, 10+12\}$
v_4	$v_1 \rightarrow v_4$	13
v_5	$v_1 \rightarrow v_3 \rightarrow v_2 \rightarrow v_5$	10



Vertices explored from v_5 . Next vertex is v_4 . Edge relaxations shown in **bold**.