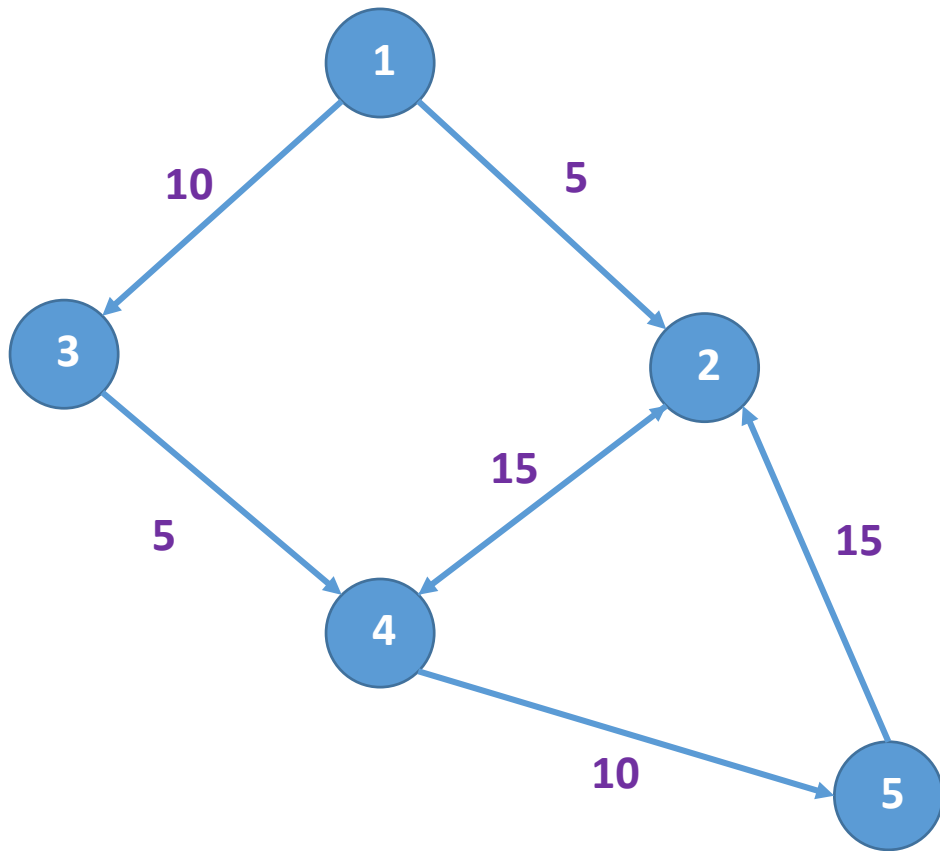


$$s = 1 \longrightarrow t = 5$$



$$X[1] = 0$$

$$T[1] = \infty$$

$$H[1] = 0$$

$$X[2] = 0$$

$$T[2] = \infty$$

$$H[2] = 0$$

$$X[3] = 0$$

$$T[3] = \infty$$

$$H[3] = 0$$

$$X[4] = 0$$

$$T[4] = \infty$$

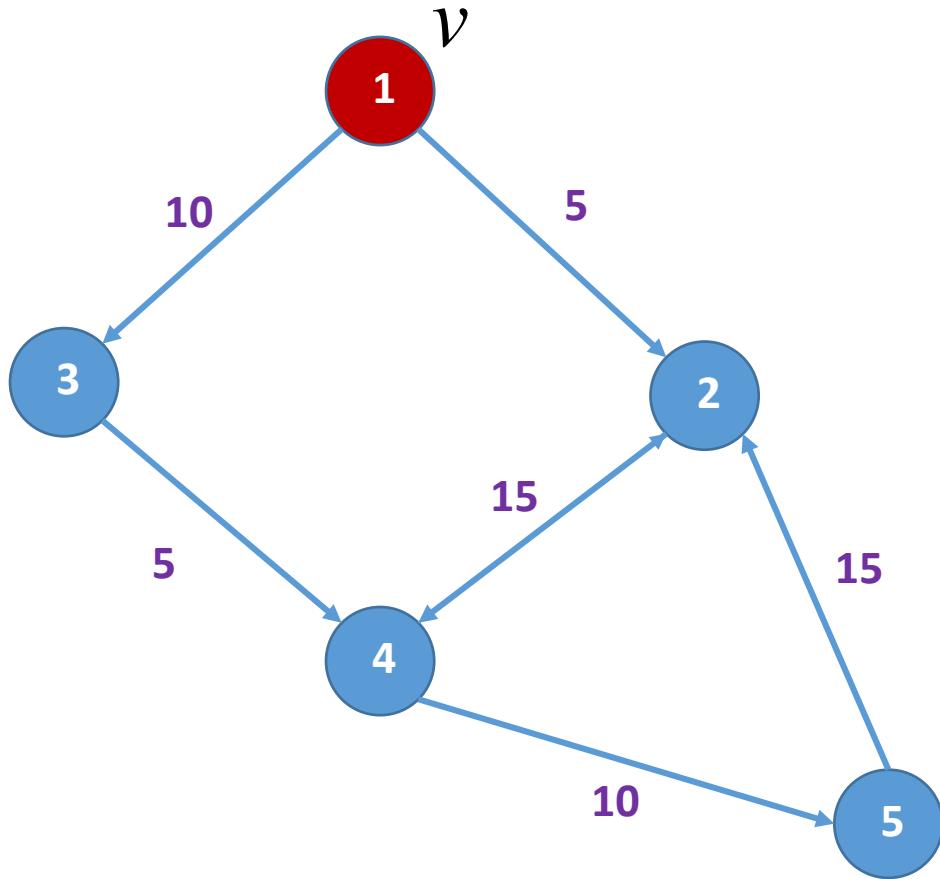
$$H[4] = 0$$

$$X[5] = 0$$

$$T[5] = \infty$$

$$H[5] = 0$$

$$s = 1 \longrightarrow v = 1$$



$$\mathbf{X}[1] = 1$$

$$X[2] = 0$$

$$X[3] = 0$$

$$X[4] = 0$$

$$X[5] = 0$$

$$\mathbf{T}[1] = 0$$

$$T[2] = \infty$$

$$T[3] = \infty$$

$$T[4] = \infty$$

$$T[5] = \infty$$

$$\mathbf{H}[1] = 0$$

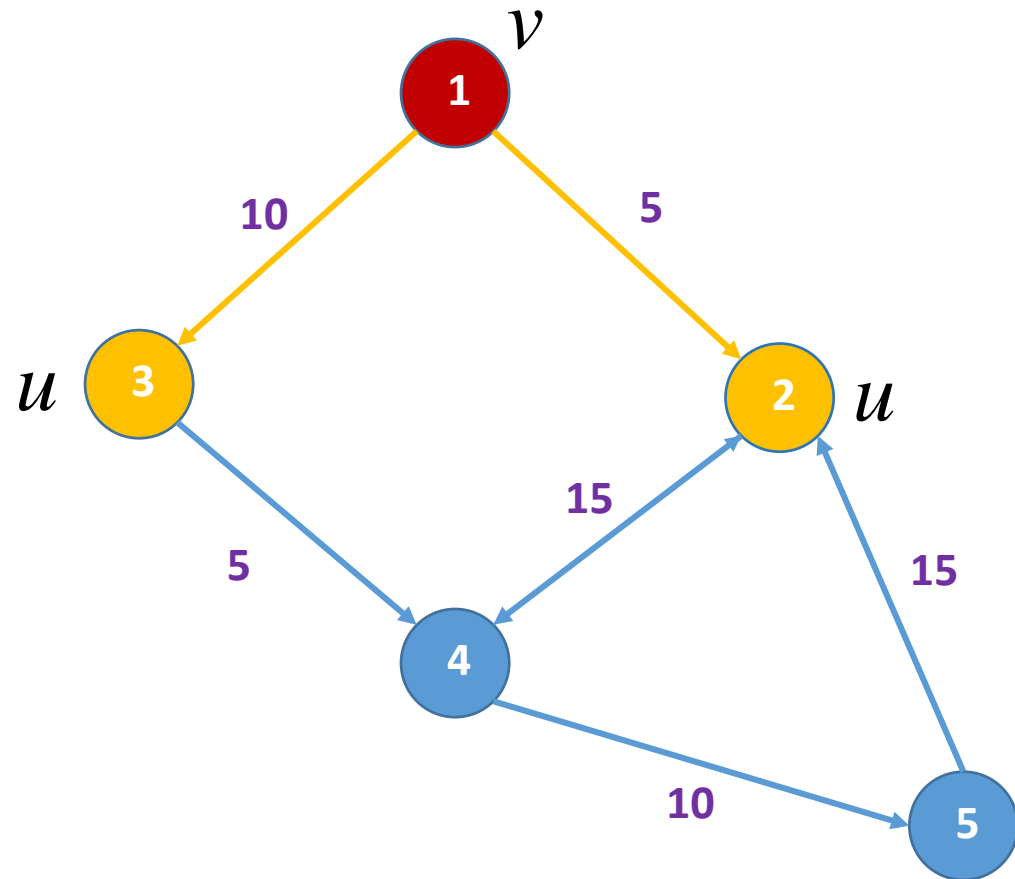
$$H[2] = 0$$

$$H[3] = 0$$

$$H[4] = 0$$

$$H[5] = 0$$

$$s = 1 \longrightarrow v = 1$$



$$X[1] = 1$$

$$T[1] = 0$$

$$H[1] = 0$$

$$X[2] = 0$$

$$T[2] = \infty$$

$$H[2] = 0$$

$$X[3] = 0$$

$$T[3] = \infty$$

$$H[3] = 0$$

$$X[4] = 0$$

$$T[4] = \infty$$

$$H[4] = 0$$

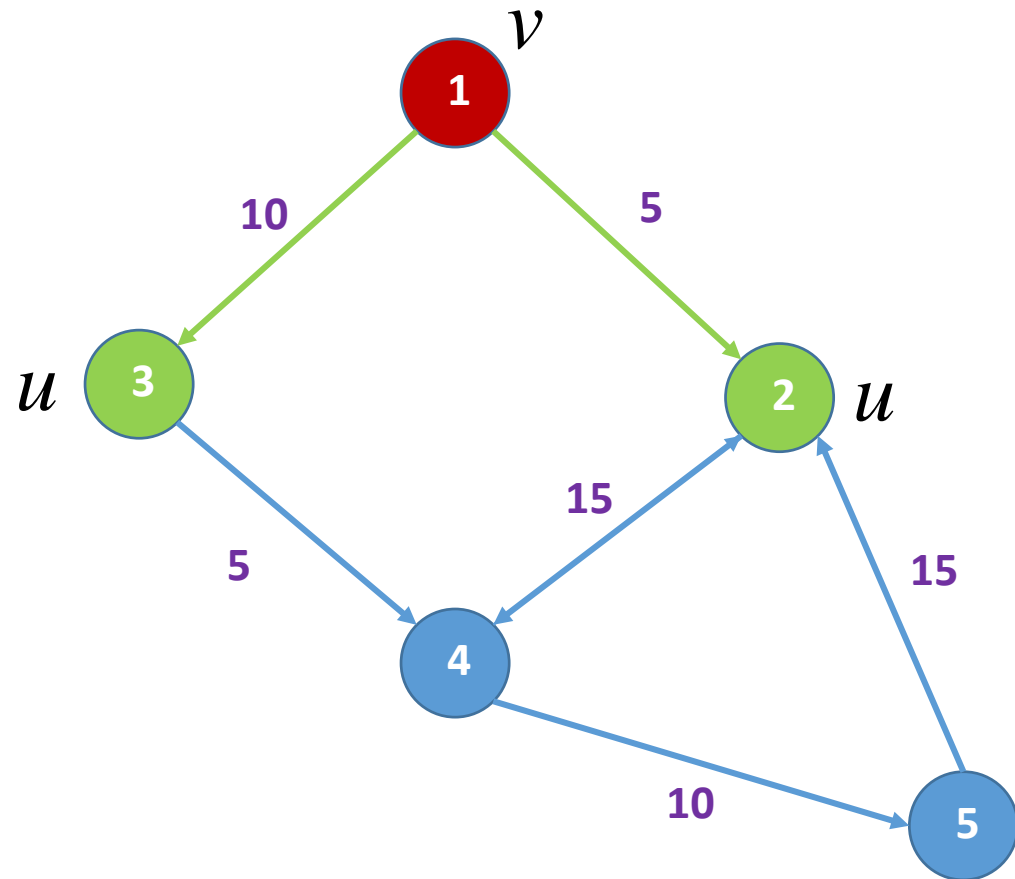
$$X[5] = 0$$

$$T[5] = \infty$$

$$H[5] = 0$$

$M : \{\text{обновление пометок}\}$

$$s = 1 \longrightarrow v = 1$$



$$X[1] = 1$$

$$X[2] = 0$$

$$X[3] = 0$$

$$X[4] = 0$$

$$X[5] = 0$$

$$T[1] = 0$$

$$T[2] = 5$$

$$T[3] = 10$$

$$T[4] = \infty$$

$$T[5] = \infty$$

$$H[1] = 0$$

$$H[2] = 1$$

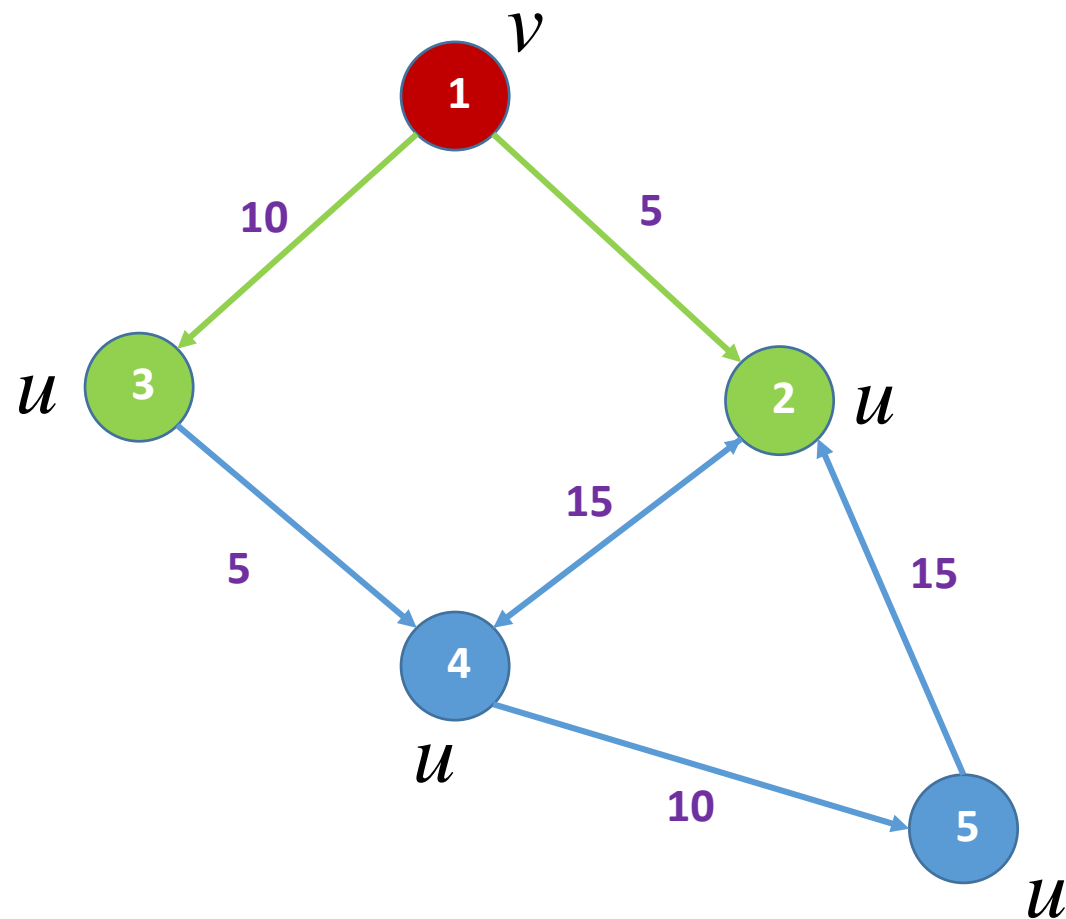
$$H[3] = 1$$

$$H[4] = 0$$

$$H[5] = 0$$

$M : \{\text{обновление пометок}\}$

$$s = 1 \longrightarrow v = 1$$



$$X[1] = 1$$

$$X[2] = 0$$

$$X[3] = 0$$

$$X[4] = 0$$

$$X[5] = 0$$

$$T[1] = 0$$

$$T[2] = 5$$

$$T[3] = 10$$

$$T[4] = \infty$$

$$T[5] = \infty$$

$$H[1] = 0$$

$$H[2] = 1$$

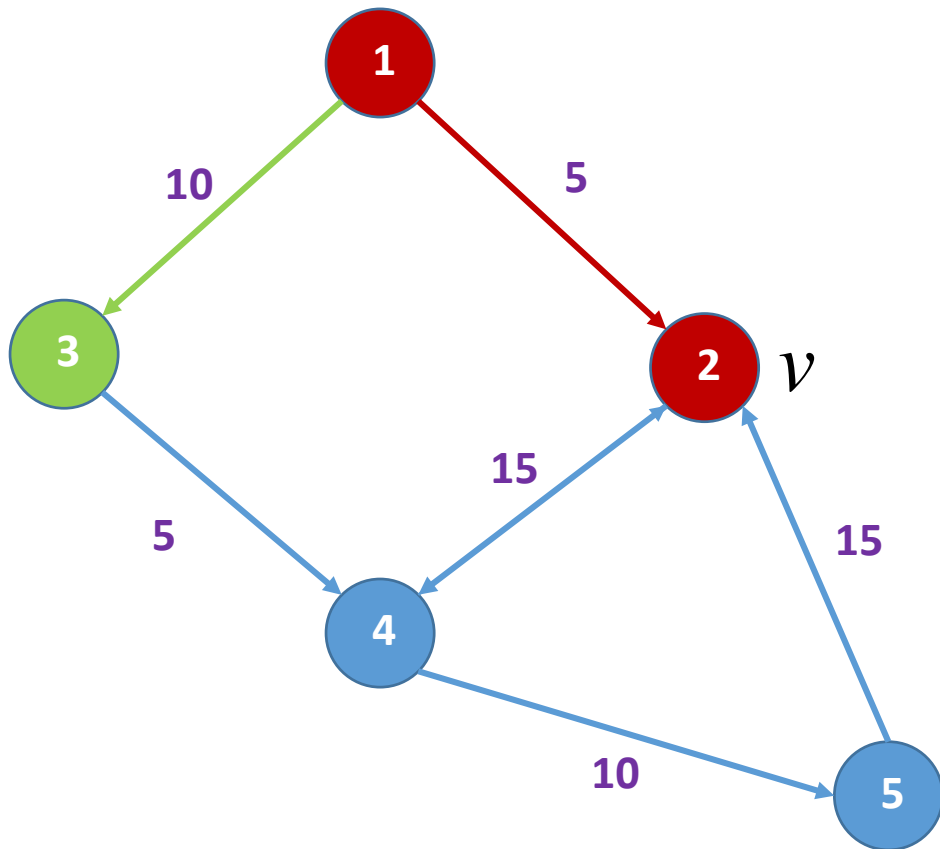
$$H[3] = 1$$

$$H[4] = 0$$

$$H[5] = 0$$

{поиск конца кратчайшего пути} $m = \infty$ $v = 0$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$T[1] = 0$$

$$H[1] = 0$$

$$X[2] = 1$$

$$T[2] = 5$$

$$H[2] = 1$$

$$X[3] = 0$$

$$T[3] = 10$$

$$H[3] = 1$$

$$X[4] = 0$$

$$T[4] = \infty$$

$$H[4] = 0$$

$$X[5] = 0$$

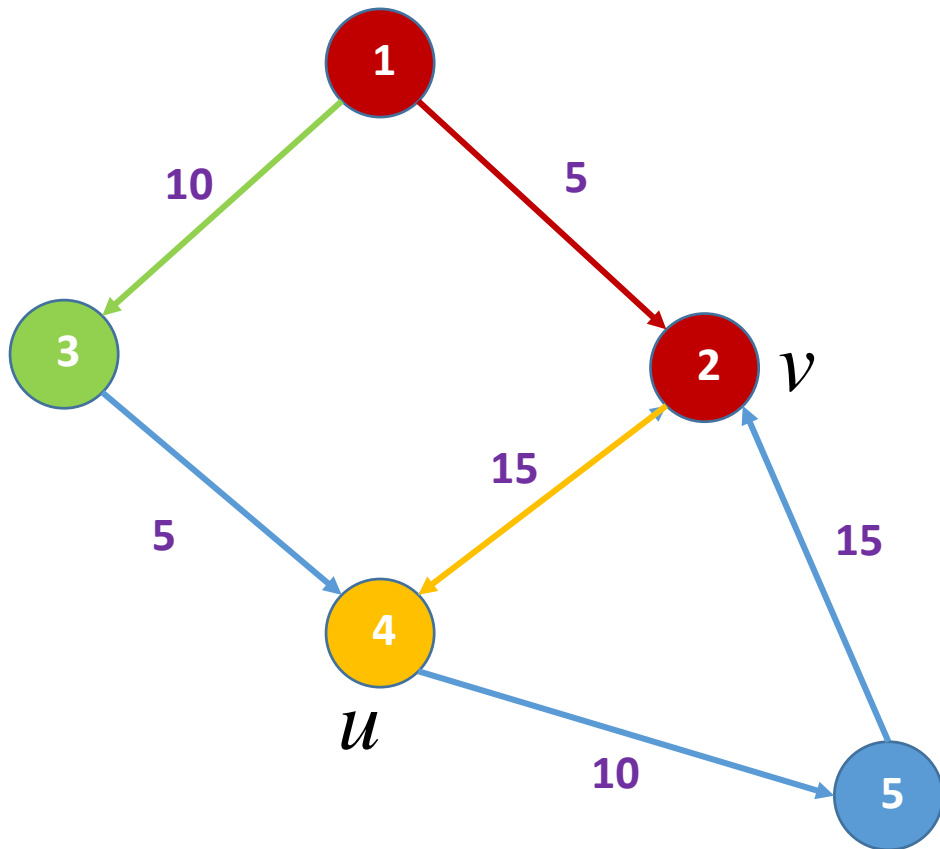
$$T[5] = \infty$$

$$H[5] = 0$$

{обновление опорного узла v}

$$m = 5 \quad v = 2$$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$X[2] = 1$$

$$X[3] = 0$$

$$X[4] = 0$$

$$X[5] = 0$$

$$T[1] = 0$$

$$T[2] = 5$$

$$T[3] = 10$$

$$T[4] = \infty$$

$$T[5] = \infty$$

$$H[1] = 0$$

$$H[2] = 1$$

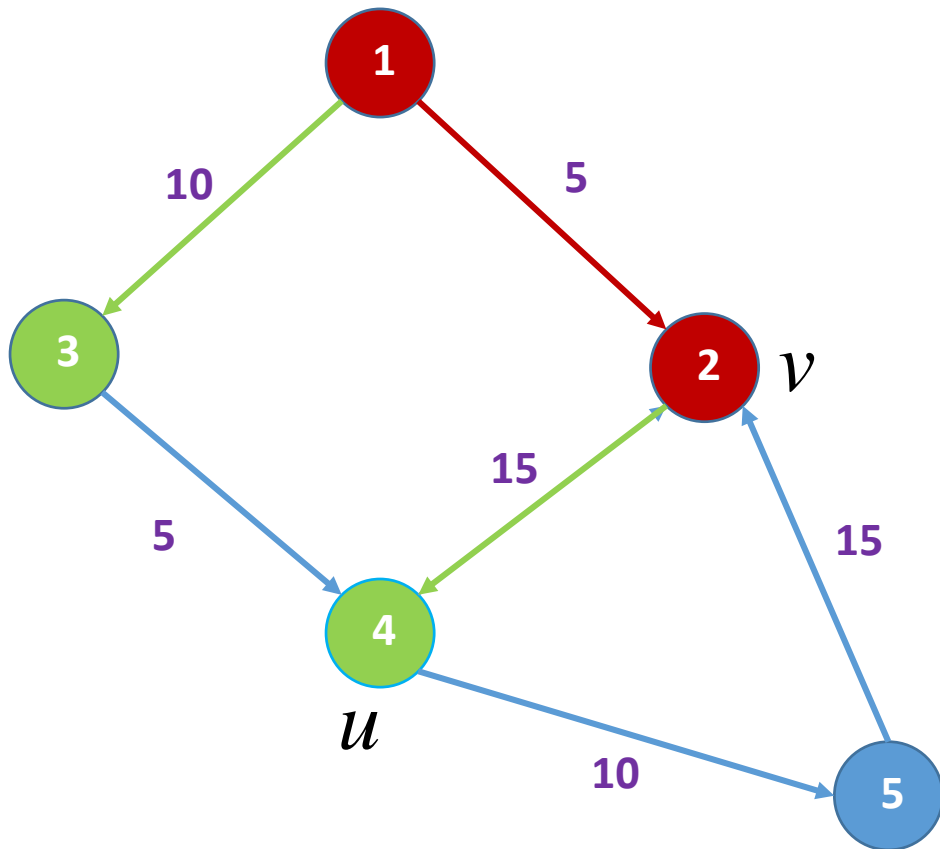
$$H[3] = 1$$

$$H[4] = 0$$

$$H[5] = 0$$

$M : \{\text{обновление пометок}\}$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$X[2] = 1$$

$$X[3] = 0$$

$$X[4] = 0$$

$$X[5] = 0$$

$$T[1] = 0$$

$$T[2] = 5$$

$$T[3] = 10$$

$$T[4] = 20$$

$$T[5] = \infty$$

$$H[1] = 0$$

$$H[2] = 1$$

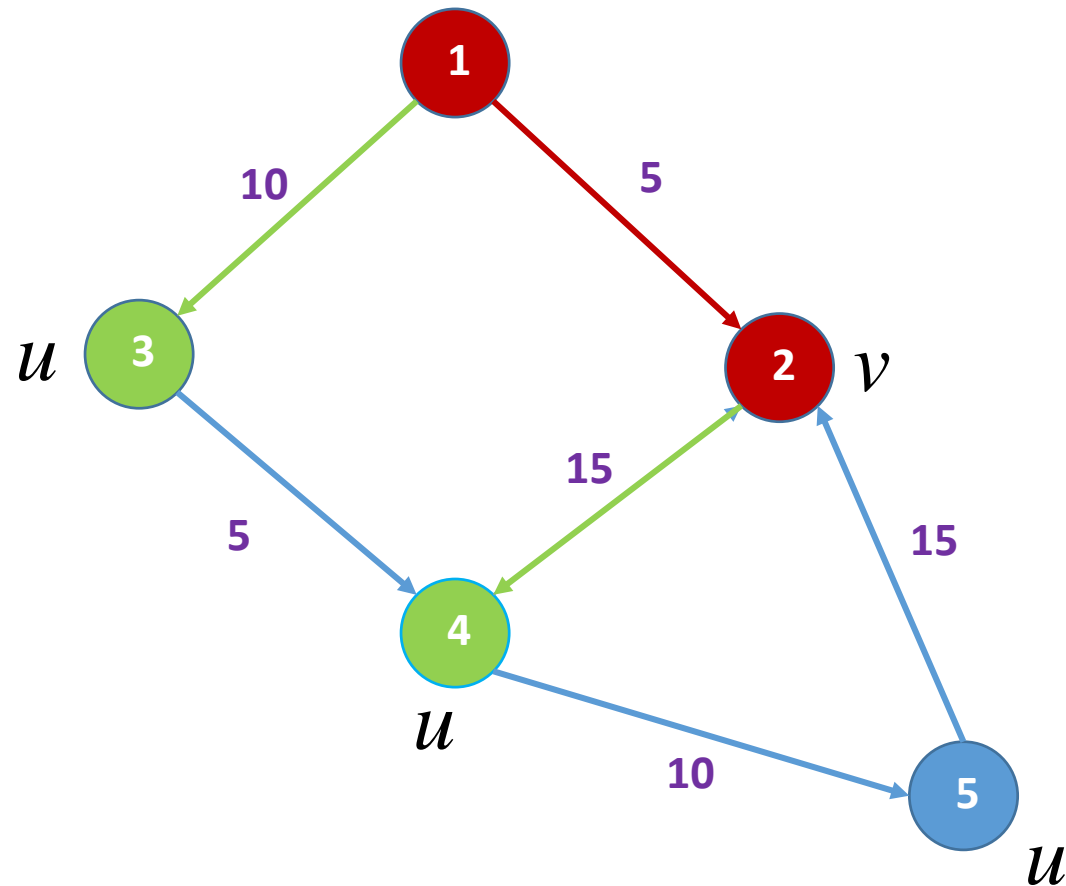
$$H[3] = 1$$

$$H[4] = 2$$

$$H[5] = 0$$

$M : \{\text{обновление пометок}\}$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$T[1] = 0$$

$$H[1] = 0$$

$$X[2] = 1$$

$$T[2] = 5$$

$$H[2] = 1$$

$$X[3] = 0$$

$$T[3] = 10$$

$$H[3] = 1$$

$$X[4] = 0$$

$$T[4] = 20$$

$$H[4] = 2$$

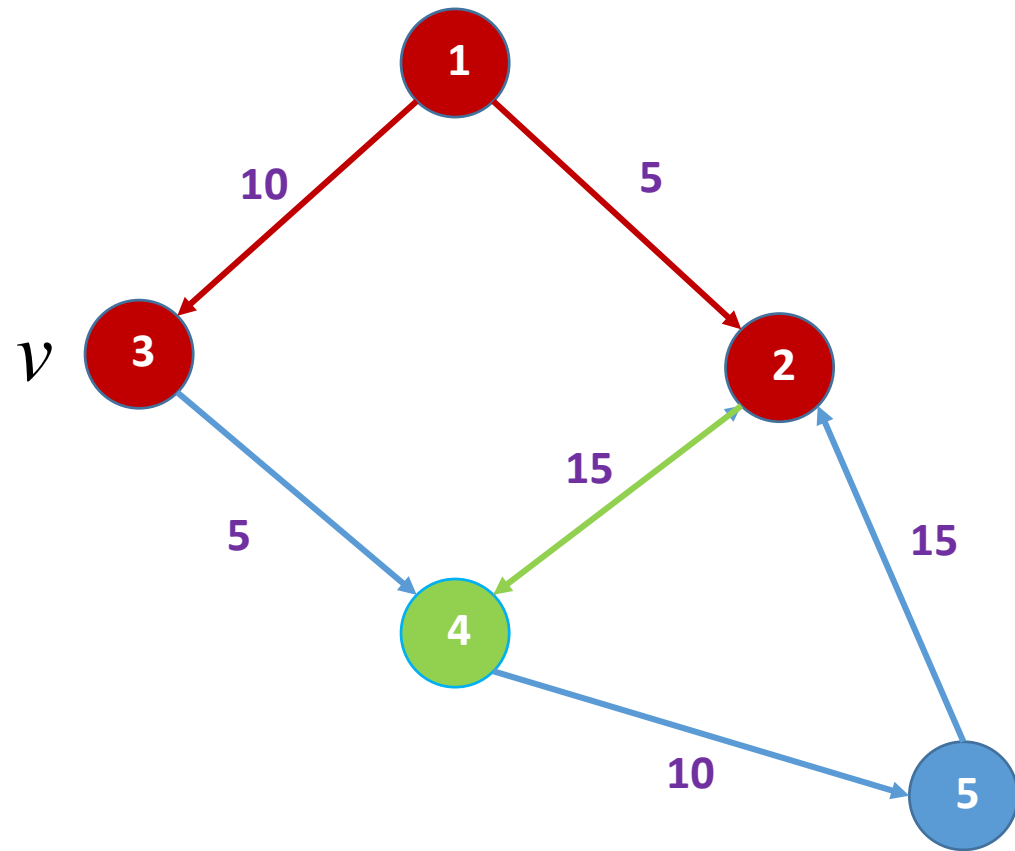
$$X[5] = 0$$

$$T[5] = \infty$$

$$H[5] = 0$$

{поиск конца кратчайшего пути} $m = \infty$ $v = 0$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$

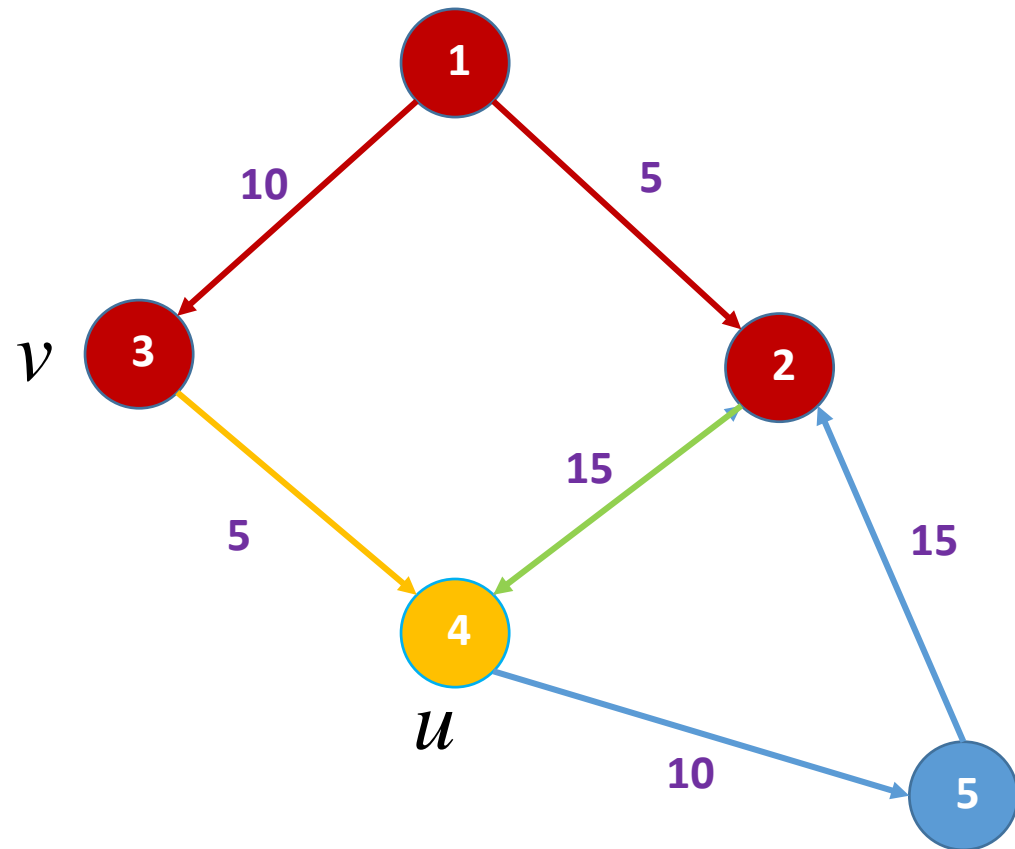


X [1] = 1	T[1] = 0	H [1] = 0
X [2] = 1	T[2] = 5	H [2] = 1
X [3] = 1	T[3] = 10	H [3] = 1
X [4] = 0	T[4] = 20	H [4] = 2
X [5] = 0	T[5] = ∞	H [5] = 0

{обновление опорного узла v}

$$m = 10 \quad v = 3$$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$X[2] = 1$$

$$X[3] = 1$$

$$X[4] = 0$$

$$X[5] = 0$$

$$T[1] = 0$$

$$T[2] = 5$$

$$T[3] = 10$$

$$T[4] = 20$$

$$T[5] = \infty$$

$$H[1] = 0$$

$$H[2] = 1$$

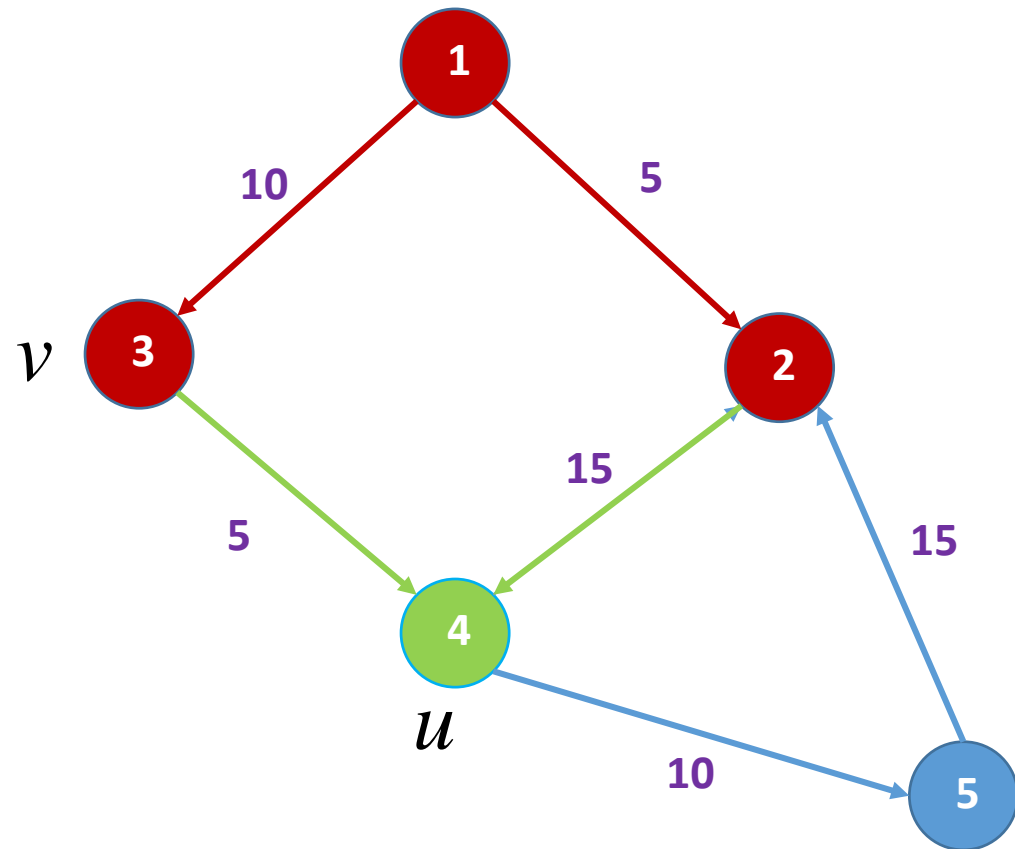
$$H[3] = 1$$

$$H[4] = 2$$

$$H[5] = 0$$

$M : \{\text{обновление пометок}\}$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$X[2] = 1$$

$$X[3] = 1$$

$$X[4] = 0$$

$$X[5] = 0$$

$$T[1] = 0$$

$$T[2] = 5$$

$$T[3] = 10$$

$$T[4] = 15$$

$$T[5] = \infty$$

$$H[1] = 0$$

$$H[2] = 1$$

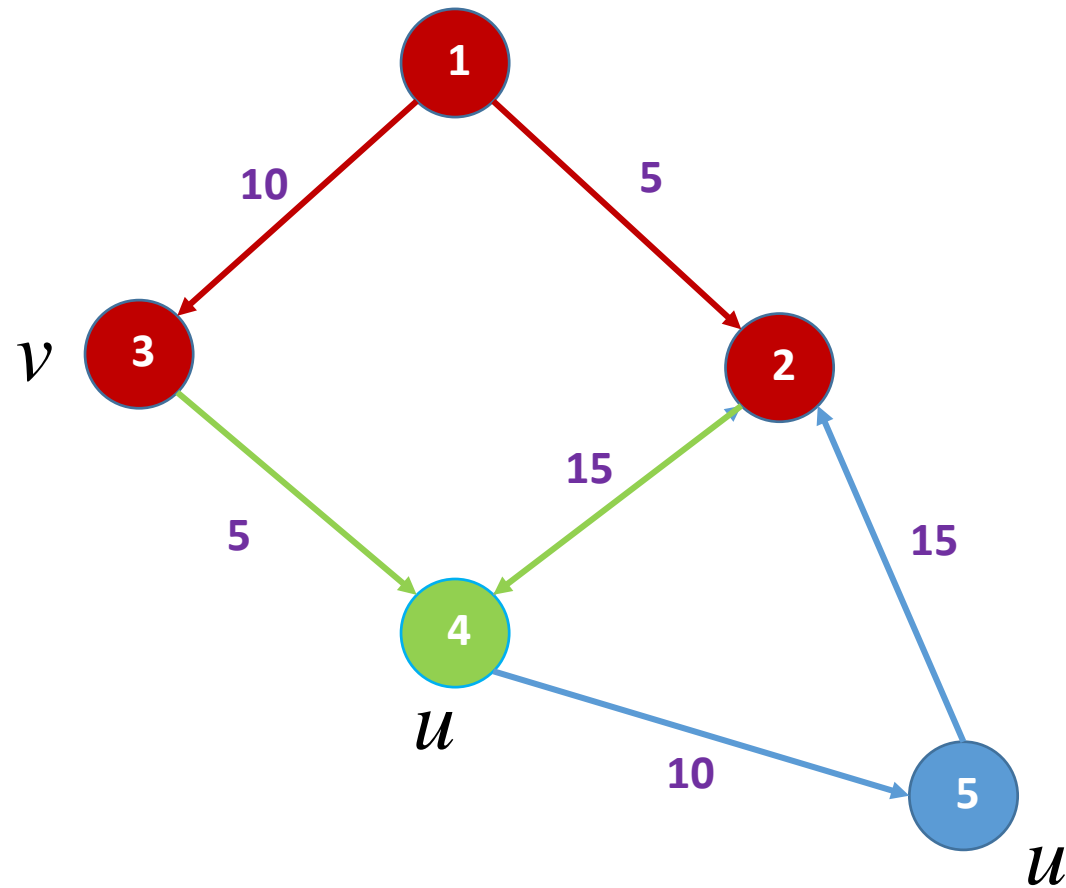
$$H[3] = 1$$

$$H[4] = 3$$

$$H[5] = 0$$

$M : \{\text{обновление пометок}\}$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 2$$



$$X[1] = 1$$

$$T[1] = 0$$

$$H[1] = 0$$

$$X[2] = 1$$

$$T[2] = 5$$

$$H[2] = 1$$

$$X[3] = 1$$

$$T[3] = 10$$

$$H[3] = 1$$

$$X[4] = 0$$

$$T[4] = 15$$

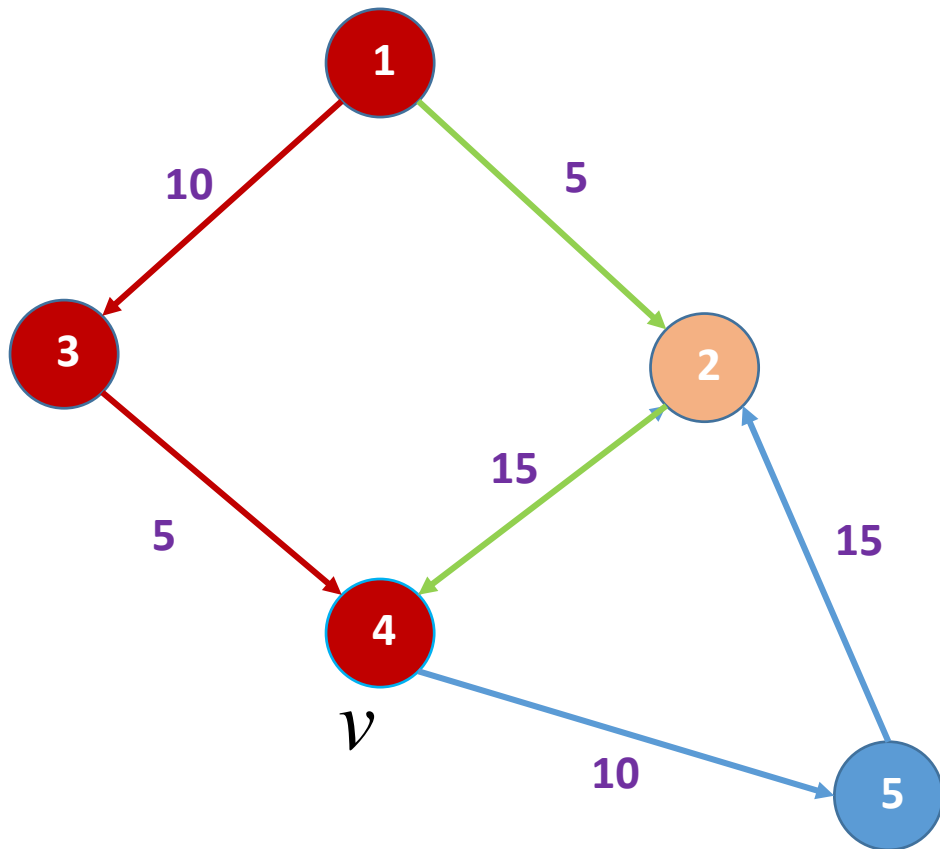
$$H[4] = 3$$

$$X[5] = 0$$

$$T[5] = \infty$$

$$H[5] = 0$$

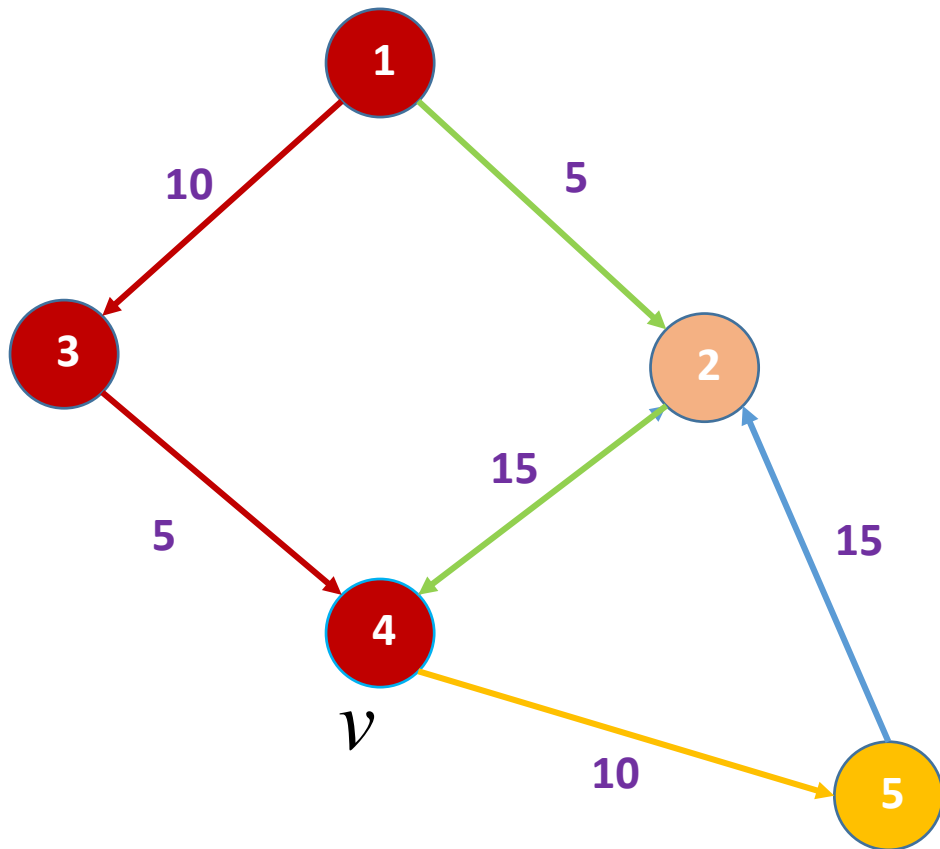
{поиск конца кратчайшего пути} $m = \infty$ $v = 0$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4$$


X [1] = 1	T[1] = 0	H [1] = 0
X [2] = 1	T[2] = 5	H [2] = 1
X [3] = 1	T[3] = 10	H [3] = 1
X [4] = 1	T[4] = 15	H [4] = 3
X [5] = 0	T[5] = ∞	H [5] = 0

{обновление опорного узла v}

$m = 15 \quad v = 4$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4$$


X [1] = 1

X [2] = 1

X [3] = 1

X [4] = 1

X [5] = 0

T[1] = 0

T[2] = 5

T[3] = 10

T[4] = 15

T[5] = ∞

H [1] = 0

H [2] = 1

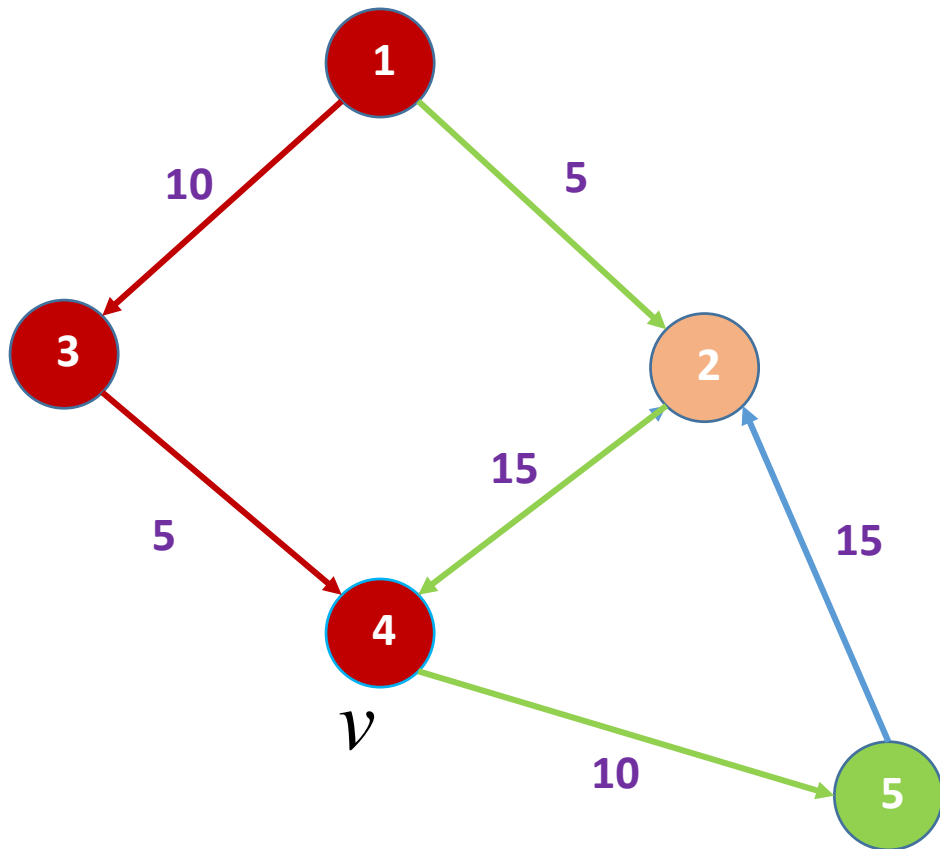
H [3] = 1

H [4] = 3

H [5] = 0

M : {обновление пометок}

$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4$



X [1] = 1

X [2] = 1

X [3] = 1

X [4] = 1

X [5] = 0

T[1] = 0

T[2] = 5

T[3] = 10

T[4] = 15

T[5] = 25

H [1] = 0

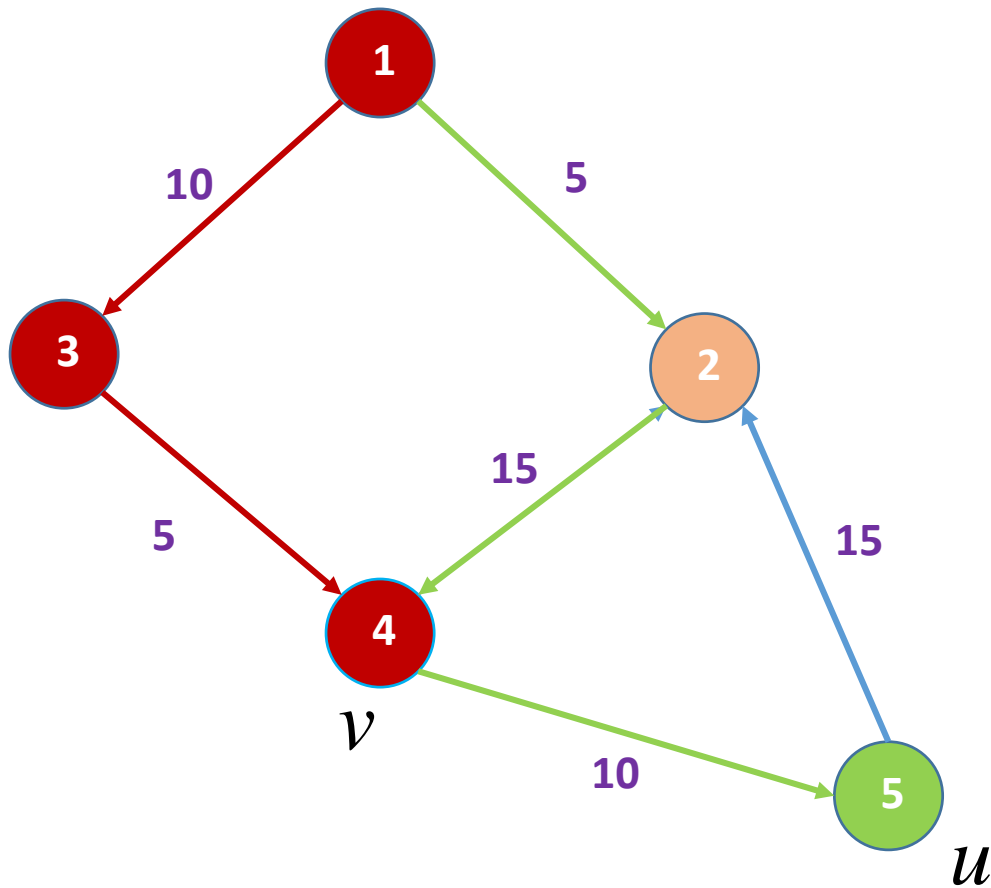
H [2] = 1

H [3] = 1

H [4] = 3

H [5] = 4

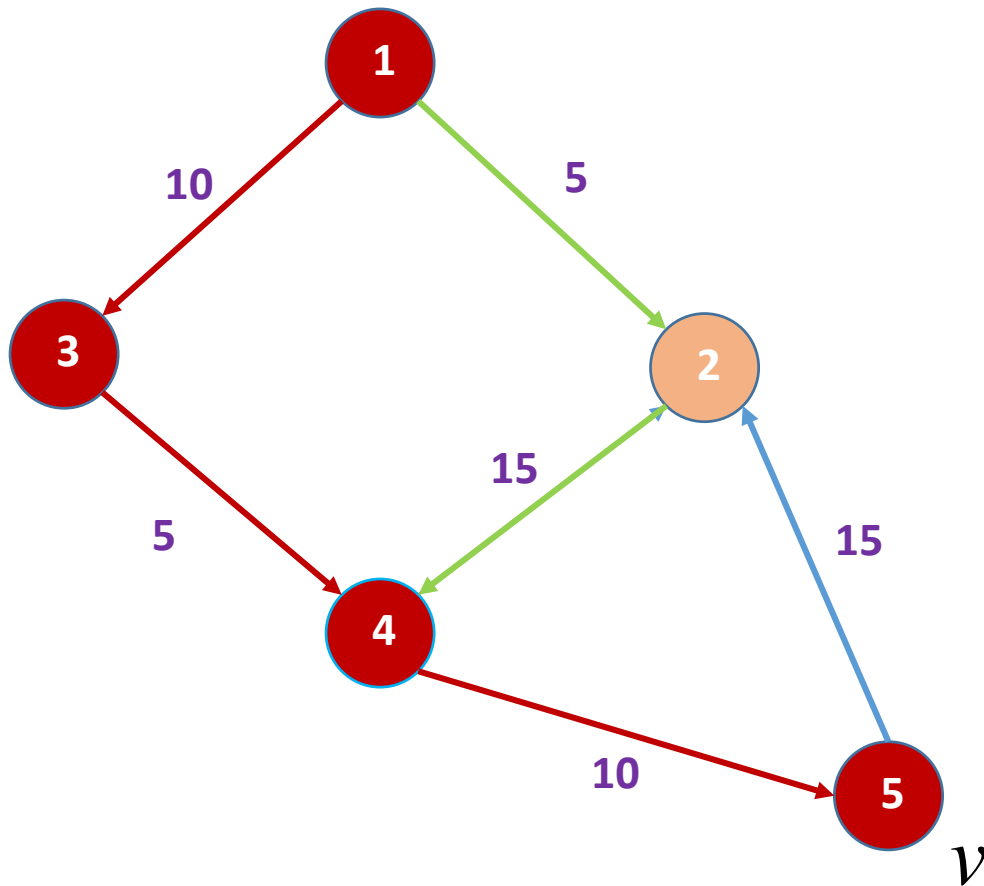
M : {обновление пометок}

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4$$


X [1] = 1	T[1] = 0	H [1] = 0
X [2] = 1	T[2] = 5	H [2] = 1
X [3] = 1	T[3] = 10	H [3] = 1
X [4] = 1	T[4] = 15	H [4] = 3
X [5] = 0	T[5] = 25	H [5] = 4

{поиск конца кратчайшего пути} $m = \infty$ $v = 0$

$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4 \longrightarrow v = 5$

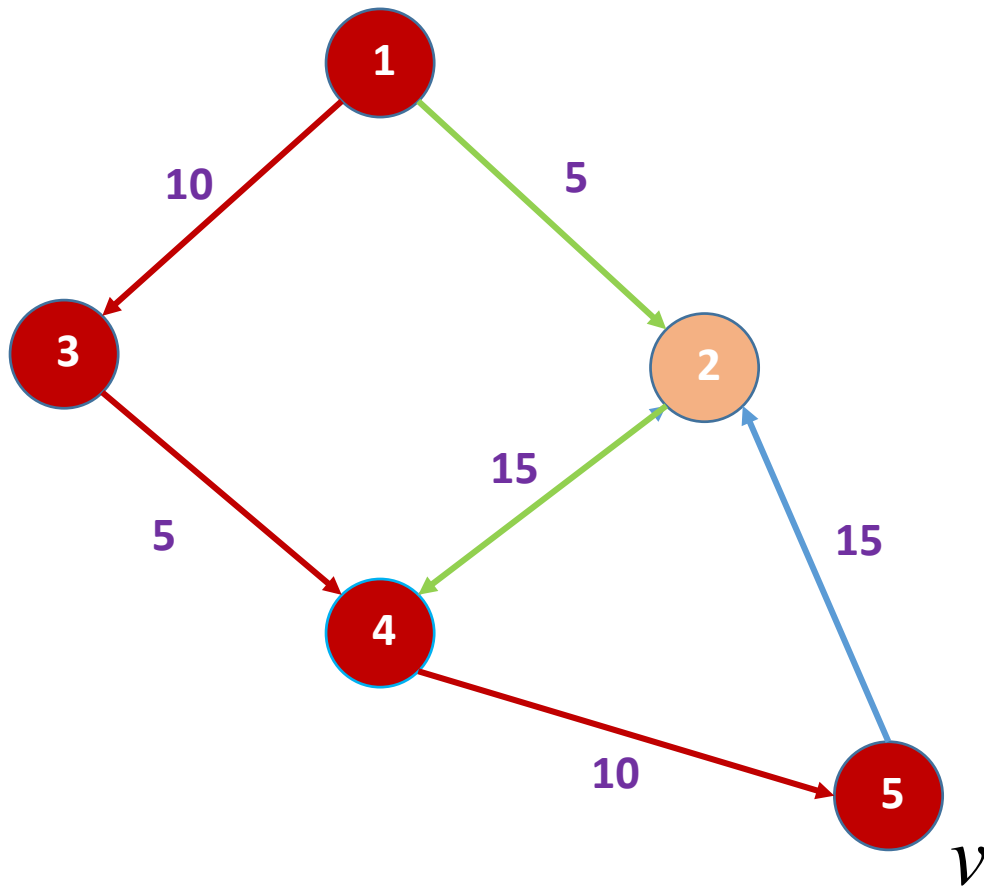


$X[1] = 1$	$T[1] = 0$	$H[1] = 0$
$X[2] = 1$	$T[2] = 5$	$H[2] = 1$
$X[3] = 1$	$T[3] = 10$	$H[3] = 1$
$X[4] = 1$	$T[4] = 15$	$H[4] = 3$
$X[5] = 1$	$T[5] = 25$	$H[5] = 4$

{обновление опорного узла v }

$m = 25$ $v = 5$

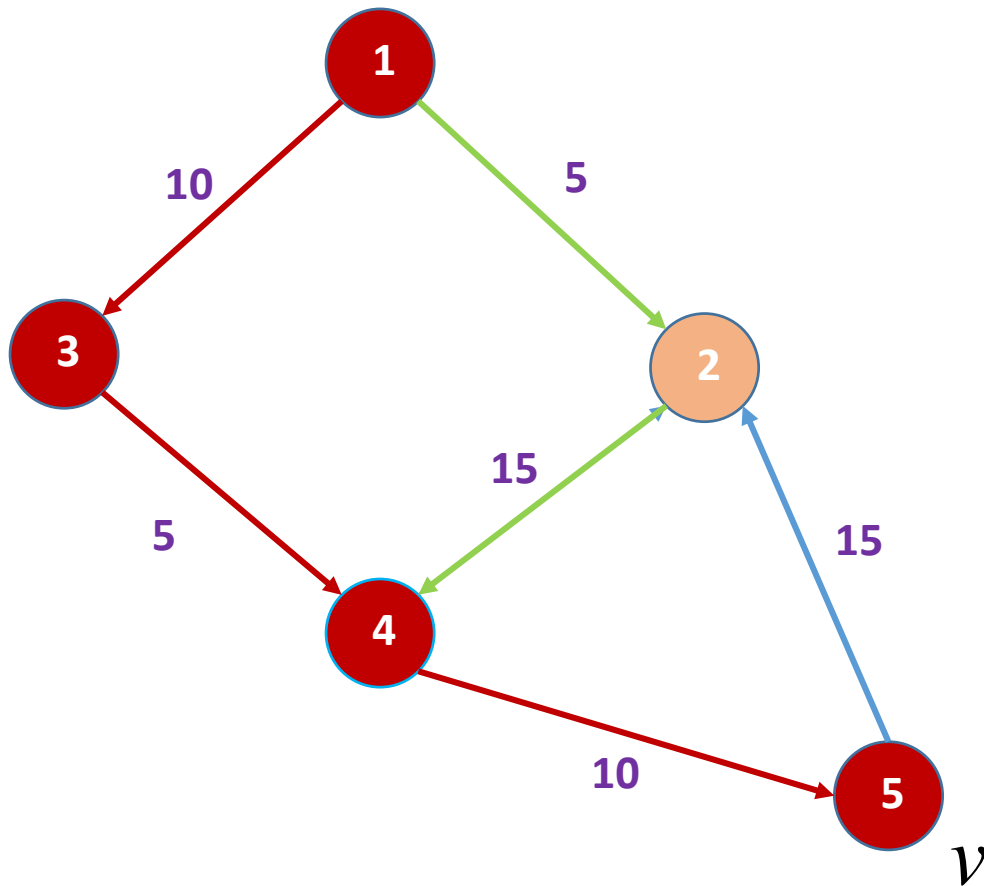
$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4 \longrightarrow v = 5$



X [1] = 1	T[1] = 0	H [1] = 0
X [2] = 1	T[2] = 5	H [2] = 1
X [3] = 1	T[3] = 10	H [3] = 1
X [4] = 1	T[4] = 15	H [4] = 3
X [5] = 1	T[5] = 25	H [5] = 4

{проверка условия остановки}

$v = 5 = t$

$$s = 1 \longrightarrow v = 1 \longrightarrow v = 3 \longrightarrow v = 4 \longrightarrow v = 5$$

 $X[1] = 1$
 $T[1] = 0$
 $X[2] = 1$
 $T[2] = 5$
 $X[3] = 1$
 $T[3] = 10$
 $X[4] = 1$
 $T[4] = 15$
 $X[5] = 1$
 $T[5] = 25$
 $H[1] = 0$
 $H[2] = 1$
 $H[3] = 1$
 $H[4] = 3$
 $H[5] = 4$

{проверка условия остановки}

 $v = 5 = t$


STOP