

## Closest match

□ Take matrix  $T_x$  and sort the values ~~according to~~ numerically:

$$T_x = \begin{bmatrix} 30 & 30 & - & - & 30 \\ 30 & 27 & 26 & 21 & 19 & - & 30 \\ 50 & 28 & 25 & 17 & 18 & - & 30 \end{bmatrix}$$

Vector with  
sorted values  
and remember  
row and column  
indices

$$y = \begin{bmatrix} 16 & (1,2) \\ 17 & (5,13) \\ 18 & (3,5) \\ \vdots & \vdots \\ 30 & \vdots \end{bmatrix}$$

$$T_c = \begin{bmatrix} 30 & - & - & 30 \\ & & & \\ & & & \\ & & & \end{bmatrix}$$

$\Rightarrow$  sort the same  
way as  $T_x$   
 $\Rightarrow$  creates vector  $x$

$$x = \begin{bmatrix} (T_c)_{1,1} \\ (T_c)_{5,13} \\ \vdots \end{bmatrix}$$