G

K^3

K

K

K^2

size $K^{3/2}$

1

1 1 2 ... $K^{1/2}$ 2 $K^{1/2}$ 2 $\sqrt{K}$

$\leftarrow K^{1/2} \rightarrow$

$\leftarrow K \rightarrow$

$\leftarrow K^{3/2} \rightarrow$

$|part| \leq O(K^{3/2}) = O(n^{1/2})$

quotient has td 4, pw 3
and is almost a tree (no $K_4 - e$)

$G =$

K

K^2

K

1

1 1 2 ... $K^{1/2}$ 2 ... $K^{1/2}$ 2 $K^{1/2}$

$K^{1/2}$

K

$K^{3/2}$

K^2
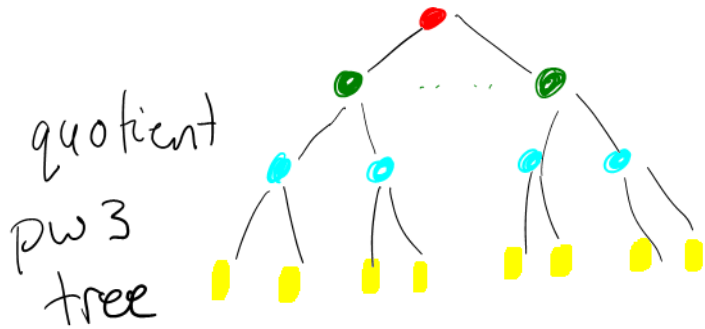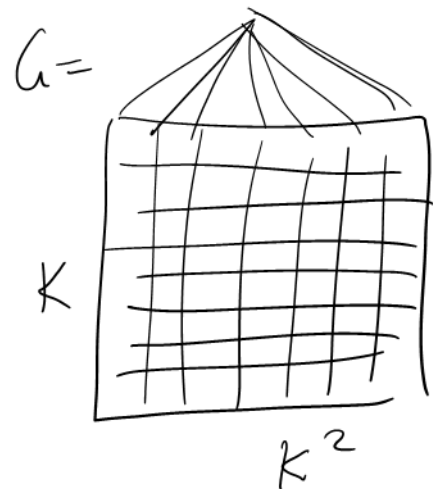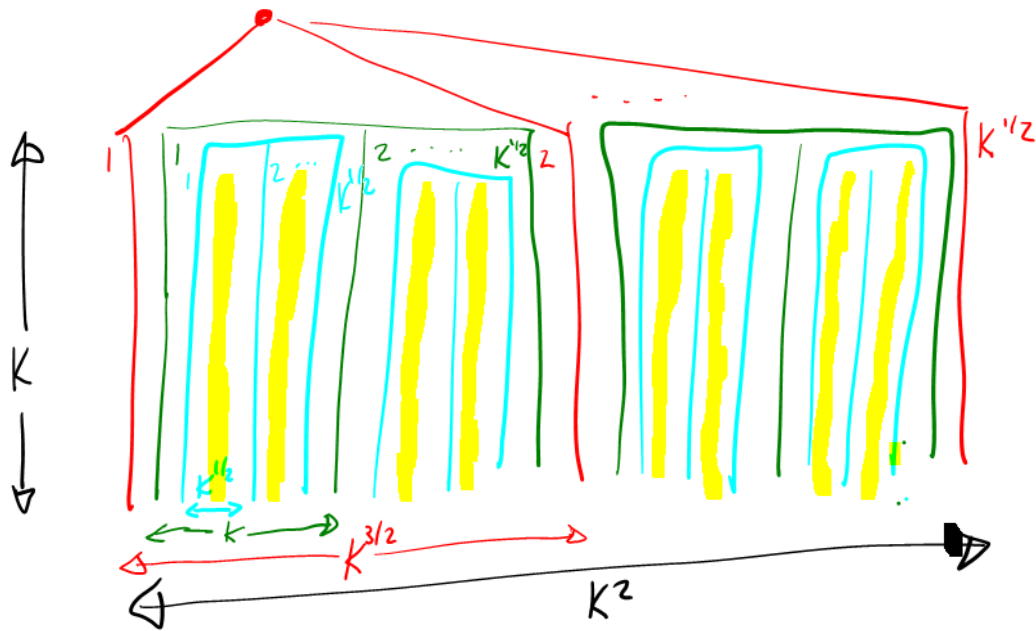
$n = K^3 + 1$

each part
has $\leq$
$2K^{3/2}$ vertices
$= 2\sqrt{n}$

quotient
pw 3
tree