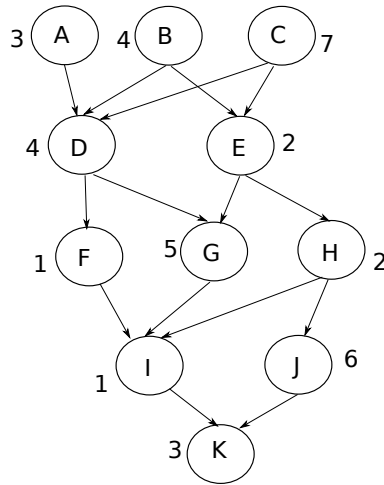# Parallel Task Graphs and Metrics

1 Midterm Fall 2017

Question: What is the work of this task graph? 38
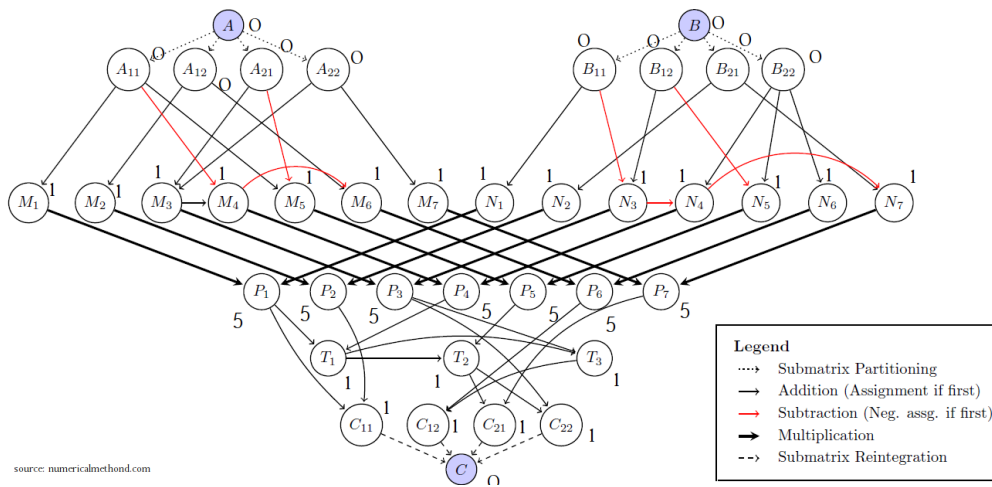
Question: What is the width of this task graph? 3

Question: What is the critical chain of this task graph? What is its length? C>E>H>J>K, 20

2 Strassen

source: numericalmethond.com

Legend

···▸ Submatrix Partitioning

⟶ Addition (Assignment if first)

⟶ Subtraction (Neg. assg. if first)

⟹ Multiplication

--▸ Submatrix Reintegration
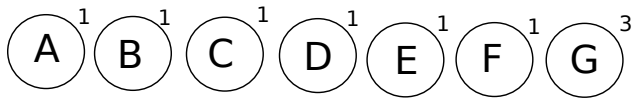
Question: What is the work of this task graph? 56

Question: What is the width of this task graph? (Estimates are fine.) 11

Question: What is the critical chain of this task graph? What is its length? A>A21>M3>M4>P4>T1>T3>C12>C, 10

3 Independent Tasks 1

A(1) B(1) C(1) D(1) E(1) F(1) G(3)

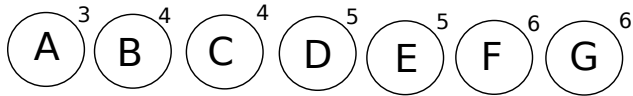**Question:** What is the work of this task graph?   9
Question: What is the width of this task graph?   7
Question: What is the critical chain of this task graph? What is its length?   G, 3

4 Independent Tasks 2

A(3) B(4) C(4) D(5) E(5) F(6) G(6)

Question: What is the work of this task graph?   33
Question: What is the width of this task graph?   7
Question: What is the critical chain of this task graph? What is its length?   G or F, 6