

**Spring 2024, Math 579: Preliminary Problem Set 5**  
**Due: Thursday, February 22nd, 2024**  
**Integer Partitions**

**Preliminary problems.** These problems should be completed before discussion on Thursday.

(P1) Complete the list of all 16 strong compositions of  $n = 5$  below.

(4, 1)

(3, 2)

(2, 3)

(P2) Complete the list of all 15 integer partitions of  $n = 7$  below.

$$\begin{aligned} 7 &= 1 + 1 + 1 + 1 + 1 + 1 + 1 \\ &= 2 + 1 + 1 + 1 + 1 + 1 \end{aligned}$$