S16 Final Problem 1 Combinatorics, Dave Bayer



Test 1

Name	Uni	

[1] How many ways can one make change for 50 cents, using pennies, nickels, and dimes?



S16 Final Problem 2 Combinatorics, Dave Bayer



Test 1

[2] How many ways can one fill a tube of length 10, using sticks of length 1 and 2?



S16 Final Problem 3 Combinatorics, Dave Bayer



Test 1

[3] Up to rotational symmetry, how many ways can we choose three of the six edges of a tetrahedron?



S16 Final Problem 4 Combinatorics, Dave Bayer



Test 1

[4] Up to rotational symmetry, how many ways can we color the six faces of a cube, using at most two colors?





Test 1

[5] Up to symmetry, how many ways can the beads of a five bead necklace be colored, using exactly three colors? Consider only rotations, and use all three colors.



S16 Final Problem 6 Combinatorics, Dave Bayer



Test 1

[6] For each of the following Young tableaux, find the corresponding polygon dissection using Stanley's correspondence.

1	3	4	6
2	5		

1	3	4
2	5	
6	7	

1	3
2	6
4	7
5	8

S16 Final Problem 7 Combinatorics, Dave Bayer



Test 1

[7] For each of the following polygon dissections, find the corresponding Young tableau using Stanley's correspondence.

