Video, handout, links at drorbn.net/MUGS-1510

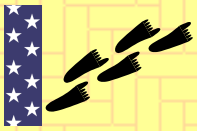
The Basic Features.

3 rotation only

§ rotation-reflection

Gotta catch 'em all!

M free mirror-reflection

G  free glide-reflection

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Theorem. There are precisely 17 patterns with which to tile the plane, no more, no less. They are all made of combinations of the 10 basic features, 2, 3, 4, 6, ✌, ✋, ✍, ✠, M, and G, as follows:

✓	Dror's	Conway's	crystallo-graphic	✓	Dror's	Conway's	crystallo-graphic
	2222	2222	p2		33	3*3	p31m
	333	333	p3		22	2*22	cmm
	442	442	p4		22M	22*	pmg
	632	632	p6		MM	**	pm
	2222	*2222	pmm		MG	*o	cm
	333	*333	p3m1		GG	oo	pg
	442	*442	p4m		22G	22o	pgg
	632	*632	p6m		∅	0	p1
	42	4*2	p4g				

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