


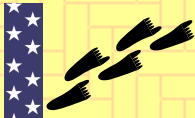



Video, handout, links at drorbn.net/SR16



The Basic Features.

3  $\$$  **Gotta catch 'em all!**

rotation only rotation-reflection



M  G  

free mirror-reflection free glide-reflection







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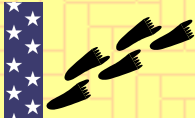




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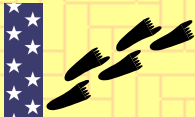




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Theorem. There are precisely 17 patterns with which to tile the plane, no more, no less. They are all made of combinations of the 10 basic features, 2, 3, 4, 6, 2, 3, 4, 6, M, and G, as follows:

✓	Dror's	Conway's	crystallo-graphic	✓	Dror's	Conway's	crystallo-graphic
	2222	2222	p2		33	3*3	p31m
	333	333	p3		222	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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