	MATH407
7	4/18/18
	@ Symmetries of regular polygons in 172
(2)	To sampety of A sold
	Ila, -azll max over A
	11 T(a) - T(a) 11 max over A(A) 9
	T maps vertices of polygon P to vertices of P T vertices E Sym (vertices)
	Thereties & Sum (vertices)
	Tis linear and vertices spanning set in IR?
	3 4 (8)9 + 1 (A) 9
	T. al and and
	yestices to adjacent vertices
	Vertices to a a ja cent very ces
	T(T(1) . T(2) / 1 / 2 / 2 / 2
	If T(1)=j, then T(2)=j+1
	T(3) = j + 2
	D+x9:= xb(D) 9' - xb9
	P(A) = T(1+k) = j+k (mod n)
•	Let a=rotation by 27, so T(1)=2
	25-1= (j,j+1,,n+j)
	2n symmetries of Ph
	P(A)
	* D = geometrie symmetries of Pr (Dihedral Group)
-	*D = geometrie symmetries of Pr (Dihedral Group)

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	le	×	2	3	1- P. de - P
e	e	d	Q2	×3 8	1 bed
d	d	X Z	α^3	e	
X S	d2	d3	e	Ex.	Tracural Pac=
x3	23	e	X	x2	

2 to ground to B reflection

	=> [e x x x 3 B x B x B x 3B
	e	e a a2 a3 B xB x2B x3B
9	3 x5)	x x2 x3 P x3 x3 x3 x3 x3 x3
	Q ²	x^2 x^3 e x
	23	23 He & a 2 23 rampedie N. H.
	B	B 23B 2B 2B
1	0B	aB) 2 to groundis a si HH set
		$\alpha^2\beta$
	23B	332 XD'YE HON HON DON
	3	2 "bl-de 29" do 6, A 3
	4/	$2 \xrightarrow{3} 3$
		1, 5
	1	V 4

$$\Delta\beta = \beta = \beta = \beta = \alpha^{-1}\beta = \alpha^{-1}\beta$$

 $\beta = \alpha^{2} = (\beta = \alpha) = \alpha^{3}(\beta = \alpha) = \alpha^{3}(\alpha^{3}\beta) = \alpha^{2}\beta$

In P, 2= e Ba=an-1B Ingeneral, Ba= 2 - 3B Sections 3.7 and 3.8: Def. Dia, -> Go homomorphism

Ker (\$)= K= {q:\$(g)=e2}

= \$\Pri(\{2e3})\$ is a subgroup of G, * Kersheine Recap: Prop 3.44: \$ is 1-1 iff Ker(\$)= {e,} *H, K subgroups of G if & ThEH, KEK, Then, Hk is a subgroup of G (and is KH) For any hEH, KEH, Jk'EK s.d.hk=k'h And ak'EK, kh=hk" B = groupole symmether of Pul Distration Bot = (Bo) d= d (Ba)= d (dB) = d B