

1.

$n$ :

$$(n^3+8)+(3n^2+6n)=(n+2)(n^2-2n+4)+3n(n+2)=(n+2)(n^2+n+4)$$

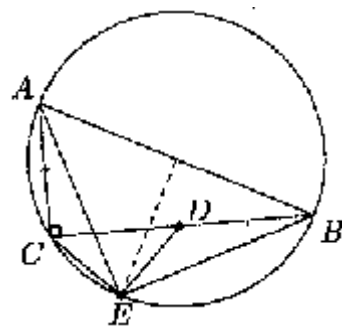
2.

28, 25, 1, 7, 3.

: 1, 2, 4, 5, 6, 7.

3.

$E$  –  $AB$ ,  $AE = BE$ .  
 $\triangle CAE \cong \triangle EBC$ ,  
 $AC = BD$ .  
 $\angle CEA = \angle BED$ .  $\angle DEC = \angle BEA = 90^\circ$ ,  $\angle BEA = \angle BCA$ .



4.  $(ac+bd)(ad+bc)=0, \quad ac+bd=0.$   
 $a^2cd+b^2cd+c^2ab+d^2ab=0 \quad (a^2+b^2)cd+(c^2+d^2)ab=0.$   
 $a^2+b^2=1 \quad c^2+d^2=1 \quad ab+cd=0.$

5.  $\dots$   $20$   
 $\dots$   $10$   
 $\dots$   $20$   
 $\dots$   $10$   $10$   
 $4, 4$   $2$   $10$   
 $4$   $18$   $8$   $4$   
 $1- 2-$   $8$   $3-$   $4-$   
 $16$   $8$   $1-$   $2-$   
 $3-$   $4-$   $8$   
 $1-$   $2-$   $1-$   
 $2-$   $16$   $1-$   
 $8$   $3-$   $4-$   
 $16$   $5-$   $8$