

parts, which, when properly arranged, shall form a parallelogram whose angles are of given magnitude.

624.  $ABCD$  is a parallelogram, and  $P$  is any point: shew that the triangle  $PAC$  is equal to the difference of the triangles  $PAB$  and  $PAD$ , if  $P$  is within the angle  $BAD$  or that which is vertically opposite to it; and that the triangle  $PAC$  is equal to the sum of the triangles  $PAB$  and  $PAD$ , if  $P$  has any other position.

625. Two circles cut each other, and a straight line  $ABCDE$  is drawn, which meets one circle at  $A$  and  $D$ , the other at  $B$  and  $E$ , and their common chord at  $C$ : shew that the square on  $BD$  is to the square on  $AE$  as the rectangle  $BC, CD$  is to the rectangle  $AC, CE$ .

THE END.