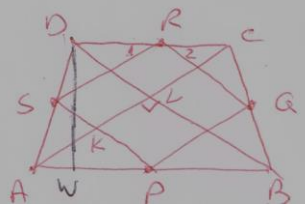
1.4
3



$1 = \frac{DR}{RC} = \frac{DS}{SA} \Rightarrow SR \parallel AC$

$PQ \parallel AC,\ RQ \parallel DB \parallel SP$

$\Rightarrow \sphericalangle RSK = 90° = \sphericalangle SKL = \sphericalangle KLD$

$(\triangle DAC$ ə içp $SR)\ 2SR = AC = 2a$ $\quad \therefore \triangle ALB$

$AL = LB = \frac{2}{3} \cdot AC = \frac{4a}{3}$

$AB = \sqrt{\left(\frac{4a}{3}\right)^2 + \left(\frac{4a}{3}\right)^2} = \frac{4\sqrt{2}a}{3}$

(yapım ilişiği) $RP = \sqrt{2}a = SQ$

$\frac{DC + AB}{2} = RP = \sqrt{2}a$

$DC = 2\sqrt{2}a - \frac{4\sqrt{2}a}{3} = \frac{2\sqrt{2}a}{3}$

$\triangle ADW$ $\quad AD = \sqrt{DW^2 + AW^2} = \sqrt{(RP)^2 + \left(\frac{AB - CD}{2}\right)^2} = \sqrt{2a^2 + \frac{2a^2}{9}} = \frac{2\sqrt{5}a}{3}$

$S_{ABCD} = \frac{RP(AB + CD)}{2} = \frac{\sqrt{2}a\left(\frac{4\sqrt{2}a}{3} + \frac{2\sqrt{2}a}{3}\right)}{2} = 2a^2$