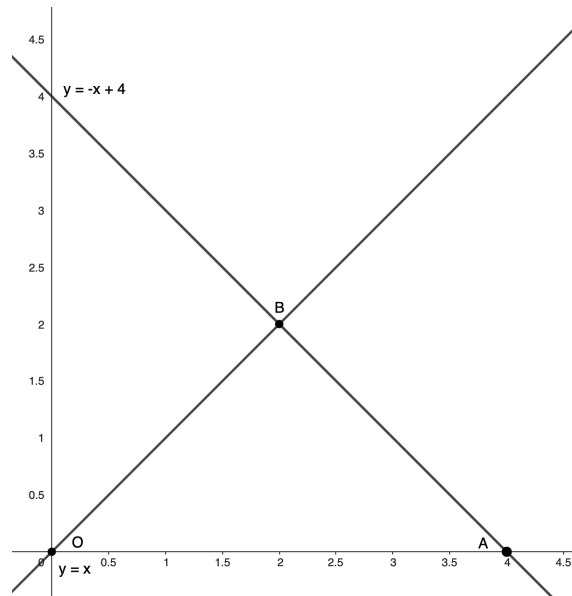


The intersection of  $y = -x + 4$  and the x-axis is marked as point  $A$ , and the intersection of  $y = -x + 4$  and  $y = -x$  is marked as point  $B$ . Additionally, the origin is marked as point  $O$ . If  $y = ax$  splits triangle  $OAB$  into two triangles with equal areas, find the value of  $a$ .<sup>1</sup>




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<sup>1</sup>Wayoh Kohnodai Girls' High School, Chiba