

Fill in the Blanks

Position Vectors

OAB is a triangle. O is the origin.

Coordinates of A	$\vec{OA}$	Coordinates of B	$\vec{OB}$	$\vec{AB}$	$ \vec{AB} $	Angle AOB	Area OAB
(3, 6)	$3\mathbf{i} + 6\mathbf{j}$	(5, 1)	$5\mathbf{i} + \mathbf{j}$	$2\mathbf{i} - 5\mathbf{j}$	$\sqrt{29}$	52.1°	13.5
(8, 2)	$8\mathbf{i} + 2\mathbf{j}$	(3, 6)	$3\mathbf{i} + 6\mathbf{j}$	$-5\mathbf{i} + 4\mathbf{j}$	$\sqrt{41}$	49.4°	21
(-5, 1)	$-5\mathbf{i} + \mathbf{j}$	(-2, -3)	$-2\mathbf{i} - 3\mathbf{j}$	$3\mathbf{i} - 4\mathbf{j}$	5	67.6°	8.5
(1, 1)	$\mathbf{i} + \mathbf{j}$	(4, -2)	$4\mathbf{i} - 2\mathbf{j}$	$3\mathbf{i} - 3\mathbf{j}$	$3\sqrt{2}$	71.6°	3
(-1, 6)	$-\mathbf{i} + 6\mathbf{j}$	(-3, 3)	$-3\mathbf{i} + 3\mathbf{j}$	$-2\mathbf{i} - 3\mathbf{j}$	$\sqrt{13}$	35.5°	7.5
(4, 2)	$4\mathbf{i} + 2\mathbf{j}$	(-5, 1)	$-5\mathbf{i} + \mathbf{j}$	$-9\mathbf{i} - \mathbf{j}$	$\sqrt{82}$	142.1°	7
(1, -2)	$\mathbf{i} - 2\mathbf{j}$	(5, 6)	$5\mathbf{i} + 6\mathbf{j}$	$4\mathbf{i} + 8\mathbf{j}$	$4\sqrt{5}$	113.6°	8
(-3, -4)	$-3\mathbf{i} - 4\mathbf{j}$	(-1, 8)	$-\mathbf{i} + 8\mathbf{j}$	$2\mathbf{i} + 12\mathbf{j}$	$\sqrt{148}$	136.0°	14
$(\sqrt{3}, 3)$	$\sqrt{3}\mathbf{i} + 3\mathbf{j}$	$(-\sqrt{3}, 1)$	$-\sqrt{3}\mathbf{i} + \mathbf{j}$	$-2\sqrt{3}\mathbf{i} - 2\mathbf{j}$	4	90°	$2\sqrt{3}$