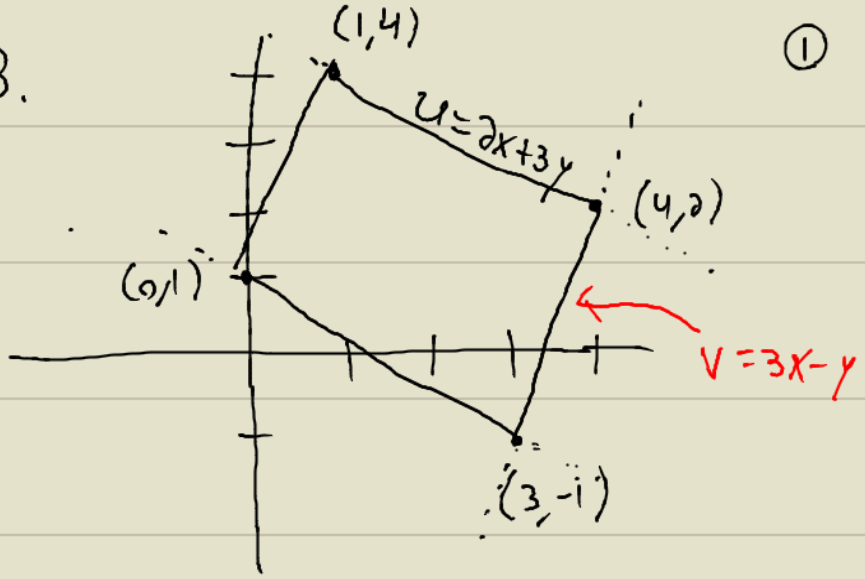
3.



① $(1,4)$ $(4,2)$

$m = \frac{2-4}{4-1} = -\frac{2}{3}$

$y = mx + b$

$4 = -\frac{2}{3}(1) + b$

$4 + \frac{2}{3} = b$

$\frac{14}{3} = b$

$y = -\frac{2}{3}x + \frac{14}{3}$

$3y = -2x + 14$

$2x + 3y = 14$

② $(0,1)$ $(3,-1)$

$m = \frac{-1-1}{3-0} = -\frac{2}{3}$

$y = mx + b$

$y = -\frac{2}{3}x + b$

$3y = -2x + 3b$

$2x + 3y = 3b$

③ $(4,2)$ $(3,-1)$

$m = \frac{-1-2}{3-4} = \frac{-3}{-1} = 3$

$y = mx + b$

$y = 3x + b$

$-b = 3x - y$

(x,y)	$u = 2x+3y$	$V = 3x-y$	(u,v)
$(1,4)$	14	-1	$(14,-1)$
$(0,1)$	3	-1	$(3,-1)$
$(3,-1)$	3	10	$(3,10)$
$(4,2)$	14	10	$(14,10)$

$u = 14$ $\quad$ $v = 10$

$u = 3$ $\quad$ $v = -1$