

0 Given:

$$A =$$

$$u_1(x,y) =$$

$$f_{x,y}(x,y) =$$

$$B =$$

$$u_2(x,y) =$$

(don't forget
the bands)

1 Find v_1 & v_2

$$v_1(a,b) =$$

$$v_2(a,b) =$$

2 Compute bands of (A, B)

3 Compute the Jacobian

$$J = \begin{vmatrix} \frac{\partial v_1}{\partial a} & \frac{\partial v_1}{\partial b} \\ \frac{\partial v_2}{\partial a} & \frac{\partial v_2}{\partial b} \end{vmatrix} = \begin{vmatrix} \dots & \dots \\ \dots & \dots \end{vmatrix} = (ad-bc)$$

4 Plug in to change of variables formula

$$f_{A,B}(a,b) = f_{x,y}(v_1(a,b), v_2(a,b)) |J|$$

↙ don't forget absolute value.