



$p(X,Y) = p(Y,X)$.

- Succeeds when $X = Y$
- Output: true (with the binding $X = Y$)

$q(X,X) = q(1,2)$.

- Fails because X would have to be both 1 and 2 at once.
- Output: false

$m(f(X),Y) = m(f(a),b)$.

- Succeeds with $X = a$, $Y = b$.
- Output: true ($X = a$, $Y = b$)

$k(X,Y) = k(a)$.

- Fails: same functor name $k/2$ vs. $k/1$.
- Output: false

$[A,B|X] = [1,2]$.

- Succeeds: $A = 1$, $B = 2$, $X = []$.
- Output: true ($A = 1$, $B = 2$, $X = []$)