

```
(defquery example [param y]
  (let [x (sample (f (theta param))) ;  $f(\mathbf{x})$ 
        z (Q x)]
    (observe (g (phi param x)) y) ;  $g(y|\mathbf{x})$ 
    (predict :x x)
    (predict :z z)))
```

```
(def posterior ((conditional example :method) parameter-value y-value))
(repeatedly K (fn [] sample posterior))
; samples  $\mathbf{x}^k \sim p(\mathbf{x}|\mathbf{y})$  and  $z^k = Q(\mathbf{x}^k)$ 
```