Capture-avoiding substitution for System F (plus numbers) terms:

$$
\begin{aligned}
n\{e/x\} &= n \\
y\{e/x\} &= \begin{cases} e & \text{if } y = x \\ y & \text{otherwise} \end{cases} \\
(e_1\ e_2)\{e/x\} &= (e_1\{e/x\})\ (e_2\{e/x\}) \\
(\lambda y{:}\tau.e_1)\{e/x\} &= \lambda y{:}\tau.(e_1\{e/x\}) \qquad \text{where } y \neq x \text{ and } y \notin fv(e) \\
(\Lambda X.e_1)\{e/x\} &= \Lambda X.(e_1\{e/x\}) \qquad \text{where } X \notin ftv(e) \\
(e_1[\tau])\{e/x\} &= (e_1\{e/x\})[\tau]
\end{aligned}
$$

where $ftv(e)$ is the set of free type variables in an expression e.
And for substituting types in System F terms:

$$
\begin{aligned}
n\{\tau/X\} &= n \\
x\{\tau/X\} &= x \\
(e_1\ e_2)\{\tau/X\} &= (e_1\{\tau/X\})\ (e_2\{\tau/X\}) \\
(\lambda x{:}\tau_1.e_1)\{\tau/X\} &= \lambda x{:}\tau_1\{\tau/X\}.(e_1\{\tau/X\}) \\
(\Lambda Y.e_1)\{\tau/X\} &= \Lambda Y.(e_1\{\tau/X\}) \qquad \text{where } X \neq Y \text{ and } Y \notin ftv(\tau) \\
(e_1[\tau_1])\{\tau/X\} &= (e_1\{\tau/X\})[\tau_1\{\tau/X\}]
\end{aligned}
$$

where $ftv(\tau)$ is the set of free type variables in a type τ.
Finally, for substituting types in types:

$$
\begin{aligned}
\mathbf{int}\{\tau/X\} &= \mathbf{int} \\
(\tau_1 \to \tau_2)\{\tau/X\} &= (\tau_1\{\tau/X\}) \to (\tau_2\{\tau/X\}) \\
Y\{\tau/X\} &= \begin{cases} \tau & \text{if } Y = X \\ Y & \text{otherwise} \end{cases} \\
(\forall Y.\tau_1)\{\tau/X\} &= \forall Y.(\tau_1\{\tau/X\}) \qquad \text{where } X \neq Y \text{ and } Y \notin ftv(\tau)
\end{aligned}
$$