

```
% Define symbolic variables with meaningful names
syms C V L v m rho Cp K n % Using Unicode where possible
```

```
% Define the symbolic terms
```

```
Ree = (V * L / v)^m % First term: (Velocity * L / KinematicViscosity)^m
```

```
Ree =
```

$$\left(\frac{LV}{v}\right)^m$$

```
Pre = (v * rho * Cp / K)^n % Second term: (KinematicViscosity * Density *
HeatCap / Conductivity)^n
```

```
Pre =
```

$$\left(\frac{Cp \rho v}{K}\right)^n$$

```
simplified = C * V^m * L^m * v^(n-m) * rho^n * Cp^n * K^(-n)
```

```
simplified =
```

$$\frac{C Cp^n L^m V^m \rho^n v^{n-m}}{K^n}$$

```
lk = simplified / L * K
```

```
lk =
```

$$\frac{C Cp^n K L^m V^m \rho^n v^{n-m}}{K^n L}$$

```
% Compute simplified symbolic expression
```

```
simplifiedExpr3 = simplify(lk)
```

```
simplifiedExpr3 = C Cp^n K^{1-n} L^{m-1} V^m \rho^n v^{n-m}
```