```
f[x_, y_] := Module[{}, If[Sin[Min[x * Sin[y], y * Sin[x]]] > Cos[Max[x * Cos[y], y * Cos[x]]] +
      (((2 (x - y) ^2 + (x + y - 6) ^2) / 40) ^3) / 6 400 000 + (12 - x - y) / 30, 1, 0]]

AbsoluteTiming[δ = 0.02;
 range = 11;
 xyPoints = Table[{x, y}, {y, 0, range, δ}, {x, 0, range, δ}];
 image = Map[f @@ # &, xyPoints, {2}];]

{5.3923085, Null}

f = Compile[{{x, _Real}, {y, _Real}},
    If[Sin[Min[x * Sin[y], y * Sin[x]]] > Cos[Max[x * Cos[y], y * Cos[x]]] +
        (((2 (x - y) ^2 + (x + y - 6) ^2) / 40) ^3) / 6 400 000 + (12 - x - y) / 30, 1, 0]];

AbsoluteTiming[δ = 0.02;
 range = 11;
 xyPoints = Table[{x, y}, {y, 0, range, δ}, {x, 0, range, δ}];
 image = Map[f @@ # &, xyPoints, {2}];]

{0.7410424, Null}


f = Compile[{{x, _Real}, {y, _Real}}, If[Sin[Min[x * Sin[y], y * Sin[x]]] >
      Cos[Max[x * Cos[y], y * Cos[x]]] + (((2 (x - y) ^2 + (x + y - 6) ^2) / 40) ^3) / 6 400 000 +
        (12 - x - y) / 30, 1, 0], CompilationTarget → "C"];

AbsoluteTiming[δ = 0.02;
 range = 11;
 xyPoints = Table[{x, y}, {y, 0, range, δ}, {x, 0, range, δ}];
 image = Map[f @@ # &, xyPoints, {2}];]

{0.5620321, Null}


p[n_, j_, k_, d_] := If[n < j, 0, d (1. / k - p[n / j, 1 + d, k + 1, d]) + p[n, j + d, k, d]]


AbsoluteTiming[p[6, 1.1, 1, .1]]

{8.6284936, 3.123}

AbsoluteTiming[p2[5, 1.07, 1, .07]]

{1.2570719, 2.62433}

LogIntegral[7.] - Log[Log[7.]] - EulerGamma

3.51411



p = Compile[{{n, _Real}, {j, _Real}, {k, _Real}, {d, _Real} },
    If[n < j, 0, d (1. / k - p[n / j, 1 + d, k + 1, d]) + p[n, j + d, k, d]], CompilationTarget → "C"];
z = .07;
AbsoluteTiming[
 Table[{n, N[LogIntegral[n] - Log[Log[n]] - EulerGamma], p[n, 1 + z, 1, z]}, {n, 2, 7}]]

$Aborted
```