```
double quad(double left,right,fleft,fright,lrarea) {
  double mid = (left + right) / 2;
  double fmid = f(mid);
  double larea = (fleft+fmid) * (mid-left) / 2;
  double rarea = (fmid+fright) * (right-mid) / 2;
  if (abs((larea+rarea) - lrarea) > EPSILON) {
    # recurse to integrate both halves
    larea = quad(left, mid, fleft, fmid, larea);
    rarea = quad(mid, right, fmid, fright, rarea);
  }
  return (larea + rarea);
}
```

Recursive Procedure for Quadrature Problem