

```

/*inspiré d'un programme de Guillaume Connan */
//size(40mm,0);
unitsize(20cm);

void carre(path p, int n, int coul1, int coul2, int coul3)
{
  if (n <= 3) {
    pair p12 = 0.5*(point(p,1)+point(p,2));
    pair p23 = 0.5*(point(p,2)+point(p,3));
    pair p34 = 0.5*(point(p,3)+point(p,4));
    pair p41 = 0.5*(point(p,4)+point(p,1));
    path diago=point(p,3)--point(p,1);
    pair centre = point(diago,0.5);
    if (unitrand() < 0.5) {
      filldraw(point(p,1)--p12--p41--cycle, gray);
      filldraw(p41--centre--point(p,4)--cycle, gray);
    }
    else {
      filldraw(point(p,1)--p12--p41--cycle, white);
      filldraw(p41--centre--point(p,4)--cycle, white);
    }

    if (unitrand() < 0.5) {
      filldraw(p12--point(p,2)--centre--cycle, gray);
      filldraw(centre--p23--p34--cycle, gray);
    }
    else {
      filldraw(p12--point(p,2)--centre--cycle, white);
      filldraw(centre--p23--p34--cycle, white);
    }

    if (unitrand() < 0.5) {
      filldraw(centre--point(p,4)--p34--cycle, white);
      filldraw(point(p,2)--centre--p23--cycle, white);
    }
    else {
      filldraw(centre--point(p,4)--p34--cycle, gray);
      filldraw(point(p,2)--centre--p23--cycle, gray);
    }

    if (coul1 != 0) filldraw(p12--p41--centre--cycle, gray);
    else filldraw(p12--p41--centre--cycle, white);
    if (coul1 != 0) filldraw(p23--p34--point(p,3)--cycle, gray);
    else filldraw(p23--p34--point(p,3)--cycle, white);
  } else {
    pair p12 = 0.5*(point(p,1)+point(p,2));
    pair p23 = 0.5*(point(p,2)+point(p,3));
    pair p34 = 0.5*(point(p,3)+point(p,4));
    pair p41 = 0.5*(point(p,4)+point(p,1));
    path diago=point(p,3)--point(p,1);
    pair centre = point(diago,0.5);
    carre(point(p,1)--p12--centre--p41--cycle, n-1, coul1, coul2, coul3);
    carre(p12--point(p,2)--p23--centre--cycle, n-1, coul1, coul2, coul3);
    carre(centre--p23--point(p,3)--p34--cycle, n-1, coul1, coul2, coul3);
    carre(p41--centre--p34--point(p,4)--cycle, n-1, coul1, coul2, coul3);
  }
}

```

```

carre(unitsquare, 6, 0, 0, 0);

```