

procedure closest pair $((x_1, y_1), \dots, (x_n, y_n))$

dist = ∞

min pair = []

for $i = 1$ to n

for $j = i + 1$ to n

if $(x_j - x_i)^2 + (y_j - y_i)^2 < \text{dist}$

dist = $(x_j - x_i)^2 + (y_j - y_i)^2$

min pair = [i, j]

end if

end for

end for

return dist, min pair

$$(n-1) + (n-2) + \dots + 1 = \frac{n(n-1)}{2}$$

$$\Theta(n^2)$$

