

Menghitung Jarak

$$M_1 = (1, 4.5)$$

Jarak $\rightarrow C_1$

$$(C_1, M_1) = \sqrt{(3-1)^2 + (4-4.5)^2} = \sqrt{4+0.25} = \sqrt{4.25} = 2.06$$

Jarak $\rightarrow C_2$

$$(C_2, M_1) = \sqrt{(6-1)^2 + (4-4.5)^2} = \sqrt{25+0.25} = \sqrt{25.25} = 5.03$$

Lebih dekat ke C_1

$$M_2 = (3, 6.5)$$

Jarak $\rightarrow C_1$

$$(C_1, M_2) = \sqrt{(3-3)^2 + (4-6.5)^2} = \sqrt{0+6.25} = \sqrt{6.25} = 2.5$$

Jarak $\rightarrow C_2$

$$(C_2, M_2) = \sqrt{(6-3)^2 + (4-6.5)^2} = \sqrt{9+6.25} = \sqrt{15.25} = 3.91$$

Lebih dekat ke C_1

$$M_3 = (4, 4.5)$$

Jarak $\rightarrow C_1$

$$(C_1, M_3) = \sqrt{(3-4)^2 + (4-4.5)^2} = \sqrt{1+0.25} = \sqrt{1.25} = 1.12$$

Jarak $\rightarrow C_2$

$$(C_2, M_3) = \sqrt{(6-4)^2 + (4-4.5)^2} = \sqrt{4+0.25} = \sqrt{4.25} = 2.06$$

M_3 lebih dekat ke C_1

$$M_4 = (7.5, 3.2)$$

Jarak $\rightarrow C_1$

$$(C_1, M_4) = \sqrt{(3-7.5)^2 + (4-3.2)^2} = \sqrt{20.25 + 0.64} = \sqrt{20.89} = 4.57$$

Jarak $\rightarrow C_2$

$$(C_2, M_4) = \sqrt{(6-7.5)^2 + (4-3.2)^2} = \sqrt{2.25 + 0.64} = \sqrt{2.89} = 1.70$$

lebih dekat ke C_2

$$M_5 = (6, 2.3)$$

Jarak $\rightarrow C_1$

$$(C_1, M_5) = \sqrt{(3-6)^2 + (4-2.3)^2} = \sqrt{9 + 2.89} = \sqrt{11.89} = 3.44$$

Jarak $\rightarrow C_2$

$$(C_2, M_5) = \sqrt{(6-6)^2 + (4-2.3)^2} = \sqrt{0 + 2.89} = \sqrt{2.89} = 1.70$$

lebih dekat ke C_2

$$M_6 = (2.5, 3.0)$$

Jarak $\rightarrow C_1$

$$(C_1, M_6) = \sqrt{(3-2.5)^2 + (4-3.0)^2} = \sqrt{0.25 + 0.04} = \sqrt{0.29} = 0.54$$

Jarak $\rightarrow C_2$

$$(C_2, M_6) = \sqrt{(6-2.5)^2 + (4-3.0)^2} = \sqrt{12.25 + 0.04} = \sqrt{12.29} = 3.5$$

lebih dekat ke C_1

$$M_7 = (5, 5.5)$$

$$(C_1, M_7) = \sqrt{(3-5)^2 + (4-5.5)^2} = \sqrt{4 + 2.25} = \sqrt{6.25} = 2.5$$

$$(C_2, M_7) = \sqrt{(6-5)^2 + (4-5.5)^2} = \sqrt{1 + 2.25} = \sqrt{3.25} = 1.80$$

lebih dekat ke C_2

Klaster 1 (C_1) = M_1, M_2, M_3, M_6

Klaster 2 (C_2) = M_4, M_5, M_7