

3 2 1 3

$$3) \begin{matrix} x_1 & y_1 & & x_2 & y_2 \\ A(2, 5/3) & & & B(-3, -3/2) \end{matrix}$$

$$d_{AB} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} = \sqrt{\frac{-9}{2} - \frac{9}{3}} = \frac{-9-10}{6}$$

$$d_{AB} = \sqrt{(-3-2)^2 + (-3/2 - 5/3)^2}$$

$$d_{AB} = \sqrt{(-5)^2 + (-19/6)^2}$$

$$d_{AB} = \sqrt{25 + \frac{361}{6}}$$

$$d_{AB} = \sqrt{\frac{150 + 361}{6}}$$

$$d_{AB} = \sqrt{\frac{511}{6}}$$

