$d_{AJ} = 10$

- Distance between B and C is

$$d_{BC} = \sqrt{(-1-2)^2 + (3-8)^2}$$
$$= \sqrt{(-3)^2 + (-5)^2}$$
$$= \sqrt{9 + 25}$$
$$= \sqrt{34}$$
$$d_{BC} = 5.831$$

- Distance between C and J is

$$d_{CJ} = \sqrt{(10-2)^2 + (6-8)^2}$$
$$= \sqrt{(8)^2 + (-2)^2}$$
$$= \sqrt{64 + 4}$$
$$= \sqrt{68}$$
$$d_{CJ} = 8.246$$