

a) Displacement includes direction:

$$d_{0-3} = +3 \text{ m}$$

$$d_{3-5} = 0 \text{ m}$$

$$d_{0-3} = +3 \text{ m}$$

$$d_{3-6} = 0 \text{ m}$$

$$d_{6-9} = -6 \text{ m}$$

$$d_{9-10} = 0 \text{ m}$$

$$d_{0-25} = 0 \text{ m}$$

(object returns to original position)

$$d_{0-5} = +3 \text{ m} + 0 \text{ m}$$

$$d_{0-5} = +3 \text{ m}$$

$$d_{0-10} = +3 + 0 + (-6 \text{ m}) + 0$$

$$d_{0-10} = -3 \text{ m}$$

b)

$$d_{0-3} = 3 \text{ m}$$

$$d_{3-5} = 0 \text{ m}$$

$$d_{0-3} = 3 \text{ m}$$

$$d_{3-6} = 0 \text{ m}$$

$$d_{6-9} = 6 \text{ m}$$

$$d_{9-10} = 0 \text{ m}$$

$$d_{0-10} = 9 \text{ m (previous part)}$$

$$d_{10-12} = 0 \text{ m}$$

$$d_{12-15} = 7 \text{ m}$$

$$d_{15-20} = 8 \text{ m}$$

$$d_{20-22} = 0 \text{ m}$$

$$d_{22-25} = 12 \text{ m}$$

$$d_{0-5} = 3 \text{ m} + 0 \text{ m}$$

$$d_{0-5} = 3 \text{ m}$$

$$d_{0-10} = 3 \text{ m} + 0 \text{ m} + 6 \text{ m} + 0$$

$$d_{0-10} = 9 \text{ m}$$

$$d_{0-25} = 9 \text{ m} + 0 + 7 \text{ m} + 8 \text{ m} + 0 + 12 \text{ m}$$

$$d_{0-25} = 36 \text{ m}$$