

Solutions

Each answer shows the steps, then the **result**.

2.1

- Membrane-bound organelles

2.2

- Any one: separate conditions, greater efficiency, protection/containment of harmful reactions

2.3

- So its digestive enzymes and acid are contained and do not damage the rest of the cell

3.1 B

- maintain different conditions in different regions

3.2

(a)

- The membrane keeps the enzymes and acid contained, protecting the cytoplasm from being digested

(b)

- Reactants and enzymes are concentrated together, raising efficiency (or: different reactions can occur at once)

3.3

- Concentrating the enzymes and substrates in one small compartment increases the chance they meet and react, speeding the reaction