

Mark schemes – Biology Unit 6 homework

- Q1.** (a) asexual 1
- clones 1
- gametes 1
- variation 1
- mitosis
in this order 1
- (b) 8 1
- (c) XY 1
- (d) both bars correctly plotted 1
- correct labels on x-axis
allow labels mark even if bars incorrect 1
- (e) 30 1
- (f) any **one** from:
 - because zebra fish is small and has high number of chromosomes
 - not all animals are listed
 - not enough data
 - animals have different sizes during their life but the chromosome number stays the same*allow other sensible conclusions* 1
- Q2** (a) (small section of) DNA 1
- (b) rr 1
- (c) persons **6** and **7** (don't have Pompe but) have a child with Pompe disorder 1
- (therefore) each parent must be a carrier
or
have a copy of the recessive gene
allow neither parent has Pompe disorder 1

		mother (number 7)	
		R	r
father (number 6)	R	RR	Rr
	r	Rr	rr

(d)

1 mark for first row

1

1 mark for second row

1

(e) ring drawn around **rr**

1

(f) 0.25

allow 1 in 4

*do **not** accept 1:4*

1

Q3 (a) Relevant organelle found in cells such as nucleus, mitochondria

1

(b) Class

Family

Species

Linnaeus

1

(c) Kingdom

1

(d) *Homo Sapiens*

ignore underlining, italics or not, capitals or not

1