

Milky Way Lab Answer Sheet

3.1 Galaxies and Galaxy Classification

A. A galaxy is an enormous group of millions or billions of stars and gas and dust held together by the force of gravity. (5)

B. The Local Group is a small cluster of about 30 galaxies, including our own Milky Way galaxy. The Local Group covers an area about 3 million light-years across. (5)

C. (4 points total)

- a. barred spiral
- b. elliptical
- c. spiral
- d. irregular

3.2 Galactic Coordinates

A. (Intentionally removed)

B.

A few examples (taken from Table 2.1) are given on the diagram below. The locations shown are approximate. (2 points each)

A = 7, -3

B = 104, -2

C = 124, 2

D = 161, -15

E = 207, -18

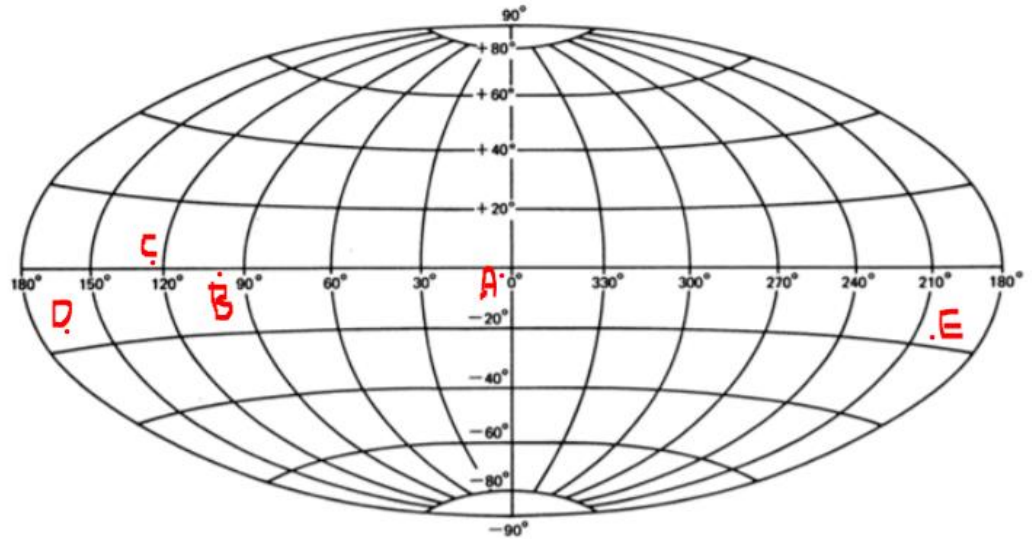


Figure 3.1 Horizontal scale is galactic longitude. Vertical scale is galactic latitude.

C.

A few examples (taken from Table 2.2) are given on the diagram below. The locations shown are approximate. (2 points each)

A = 113, -13

B = 310, -10

C = 21, 60

D = 77, -80

E = 355, -62

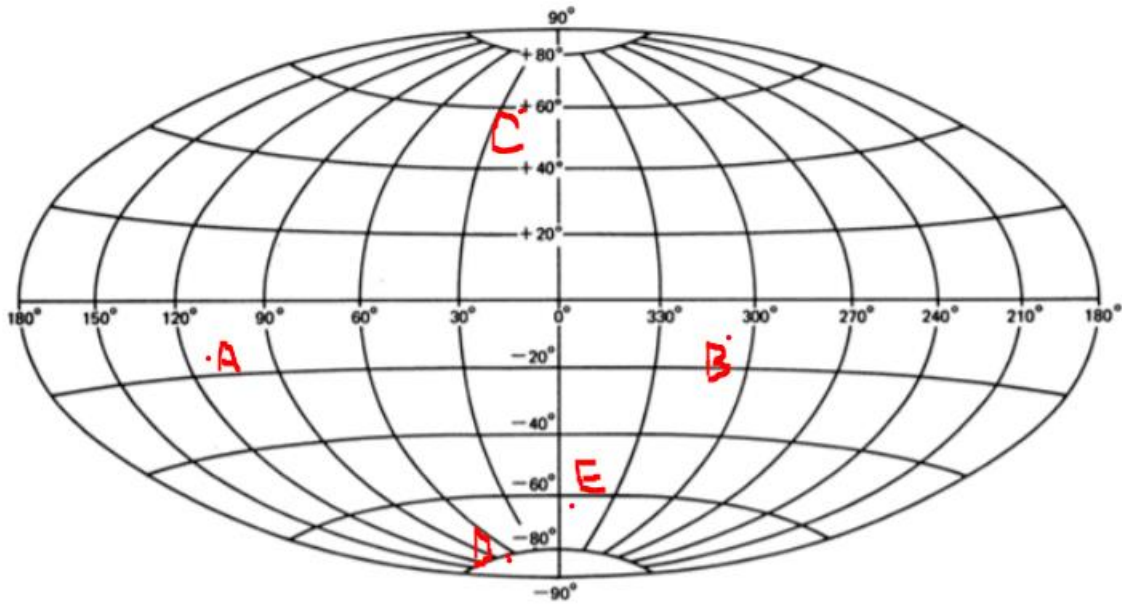


Figure 3.2 Horizontal scale is galactic longitude. Vertical scale is galactic latitude.

D. SKIPPED

3.3 General Questions on the Milky Way

A. SKIPPED

B. Spiral tracers are groups of young stars located in the spiral arms. (2)

C. ---

D. Lenticular galaxies have a disk area, but lack spiral arms like spiral galaxies have. (2)

E. An E6 galaxy would have the more elongated shape. (2)