

IMPORTANT TIP: Do not use Windows to copy or delete coverages, shapefiles, and geodatabases. Always use ArcCatalog to delete or copy spatial data sets to prevent problems. It is also prudent to avoid using spaces in folder names.

Important Terms

adjacency	discrete	layer	point
attributes	domain	layer file	polygon
band	feature	layer package	precision
cell/pixel	feature class	line	raster
cloud	feature dataset	logical consistency	resolution
connectivity	feature service	map service	scale range
continuous	FID/OID	map units	spaghetti model
coordinate system	folder connection	map package	Table of Contents
coverage	geographic coordinate	metadata	thematic accuracy
data frame	system (GCS)	multipart feature	thematic mapping
datum	geometric accuracy	network topology	topological model
dBase	geoprocessing service	node	vector
digital elevation model	georeferenced	overlap	vertex/vertices
digital raster graphic	intersection	planar topology	web map

Chapter Review Questions

1. Explain the difference among the terms *feature*, *feature class*, and *feature dataset*.
2. Imagine you are looking at a geodatabase that contains 50 states, 500 cities, and 100 rivers. How many feature classes are there? How many features? How many attribute tables? How many total records in all the attribute tables?
3. If the following data were stored as rasters, which ones would be discrete and which would be continuous: rainfall, soil type, voting districts, temperature, slope, and vegetation type?
4. John and Mary are collecting GPS data together. John's GPS says their location is at (631058, 4885805). Mary's GPS says their location is at (1204817, 663391). Explain what is going on. What must be done to make the GPS units agree?
5. Would raster or vector be a better format for storing land ownership parcels? Give at least three reasons for your choice.
6. You measure a football field (100 yards long) on a large-scale map and find that it is 0.5 inch long. What is the scale of the map?
7. Scott is walking the boundary of a wetland area to map it. His expensive GPS records locations to the nearest 0.10 meter. Is the boundary he creates accurate? Is it precise? Explain your reasoning.
8. Imagine a feature class of agricultural fields with attributes for the crop and the organic matter content of the soil. What issues might impact the thematic accuracy of each attribute?
9. Explain some ways that GIS services are different from data that reside on your hard drive.
10. Construct an appropriate citation for the data that come with this book.