Examine each of the following slides, note the features in common and those which differentiate the organs. Illustrate the five illustrations to take up at least half of a page, each at the noted power. Note the purposes of each of the functional features labeled. Compare with the illustrations in di Fiore's *Atlas of Normal Human Histology*, 9th Ed. Read di Fiore's discussion of the endocrine system, pp 266-267 for a discussion of functions.

Slide 14, Hypophysis, pars distalis, intermedia & nervosa, cat, H&E, (MF 9th, page 269)
I. Hypophysis, 40x:
- infundibulum (attaches to hypothalamus)
- pars distalis (adenohypophysis)
- pars intermedia (remnant, Rathke's pouch)
- pars nervosa (neurohypophysis)
- capsule (note blood vessels in capsule sinusoidal capillaries)

Slide 15, Thyroid, follicles, retic & simple cuboid epithelium (MF 9th, page 275)

III. Thyroid Follicles, 400x:
- follicles (synthesize, store release thyroxine)
- colloid
- cuboidal follicular cells
- parafollicular cells (clear, release calcitonin)
- sinusoidal capillaries

Slide 16, Adrenal gland, cortex (& medulla?) (MF 9th, page 279)
IV. Adrenal Gland, 40x or 100x, which ever allows best view of all three layers:
- capsule
- zona glomerulosa (superficial ovoid groups) [makes mineralcorticoids]
- zona fasciculata (columns of cells) [makes glucocorticoids]
- zona reticularis (deep anastomosing cords of darker cells) [makes androgens]
- sinusoidal capillaries
- adrenal medulla (if present, usually not seen)

Slide 17, Islets of Langerhans, human pancreas (MF 9th, pages 229-233)

V. Islets of Langerhans, 100x:
- pancreatic acini (secrete enzymes, $\text{HCO}_3^-$)
- intralobular duct (collects pancreatic juices)
- interlobular duct (delivers to duodenum)
- Islets of Langerhans (produces both insulin and glucagon)

[See also slide 10: Vater-Pacinian Corpuscles in the pancreas (H 1688).]