Name_____

Biology 102 - Homework - Plant Reproduction

Read Chapter 21, 27.4-27.5 and complete the following table comparing and contrasting the sexual life cycles of four groups of plants.

	Non-vascular plants	Seedless vascular plants	Seed bearing vascular plants (Gymnosperms)	Seed bearing vascular plants (Angiosperms)
List the common names of some of the phyla present in this group.				There is only one phylum known as the Anthophyta or commonly called flowering plants.
About how long have species from this group existed on earth?				
Number the groups according to their current level of diversity (1 = most diverse group, 4 = least diverse).	4			
Which generation is dominant (or most conspicuous during the sexual life cycle)?			The diploid sporophyte stage is most conspicuous.	
Do the two generations exist as separate free-living stages during part of the life cycle, or are the generations mutually dependent?	The gametophyte generation exists as a separate free-living stage, the sporophyte is transient and dependent on the gametophyte.			
How many different kinds of spores are produced during the life cycle, and describe what each spore type develops into.	2 different types of spores, one develops into the male gametophyte, the other develops into the female gametophyte.			
Describe how the male gamete (sperm) gets to the female gamete (egg).	The male gametes are flagellated sperm cells that must swim through standing water to get to the egg cell which is inside archegonia on the female gametophytes.			
Describe how these plants disperse themselves. (i.e. how these plants insure that all their young do not grow up right next to them.)		The sporophyte generation releases tiny single-celled spores that are wind dispersed.		