

130 WORKSHEET (2.2)

Name _____

Let $U = \{\text{All people who work for University Hospital}\}$

$N = \{\text{Nurses who work for University Hospital}\}$

$D = \{\text{Doctors who work for University Hospital}\}$

$M = \{\text{Males who work for University Hospital}\}$

Note: Do you think that all the employees at a hospital are either nurses or doctors?

1. Describe each of the following sets in words.

A. $N \cup M$

B. $N \cap M$

C. \bar{M}

D. \bar{D}

E. $D \cap \bar{M}$

F. $\bar{D} \cap \bar{M}$

G. $\bar{D} \cup \bar{M}$

2. Consider the set $N \cup M$. Which of the following people belong to this set?
- A. Dr. Susan Adams C. Ms. Alice Chen, who is a nurse.
B. Dr. John Black D. Mr. Alan Drake, who is a nurse.
3. Which of the people listed in question 2. belong to the set $N \cap M$?
4. Which of the people listed in question 2. belong to the set $D \cup \bar{M}$?
5. Which of the people listed in question 2. belong to the set $D \cap \bar{M}$?
6. Using sets N , D , and M as defined above, use set notation to describe each of the following:
- A. $\{\text{Male nurses who work for University Hospital}\}$
- B. $\{\text{All those who work for University Hospital who are either nurses or females}\}$
- C. $\{\text{All female doctors who work for University Hospital}\}$