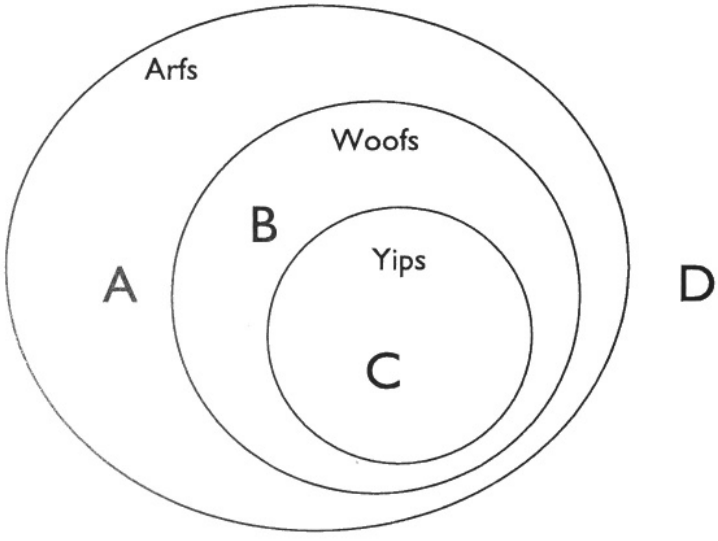
More Classification and Real Numbers Practice

Directions:

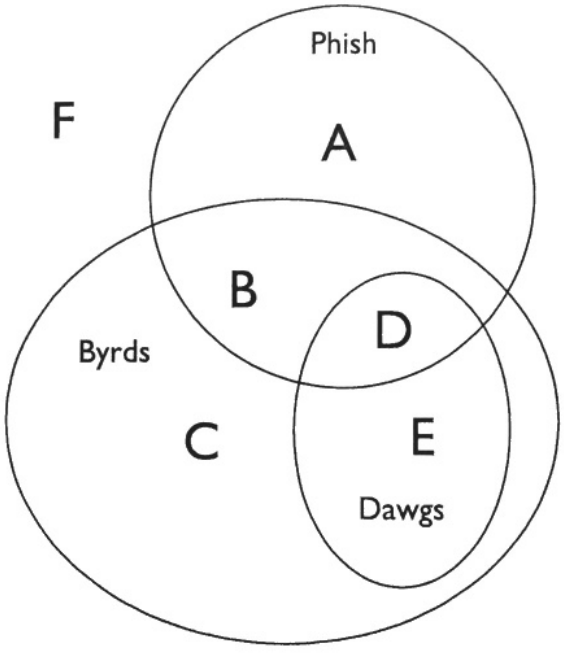
Say if each statement is true or false. Then, indicate which part(s) of the Venn Diagram supports your answer.

Venn Diagram #1:

1) If you're a Woof, you're an Arf.
2) All Arfs are Woofs.
3) If you're not an Arf, you're not a Yip.
4) Some Woofs are Yips.
5) If you're not a Woof, you must be an Arf.
6) All Yips are Arfs.
7) If you're an Arf, you're a Yip.
8) If you're not a Yip, you might be a Woof.



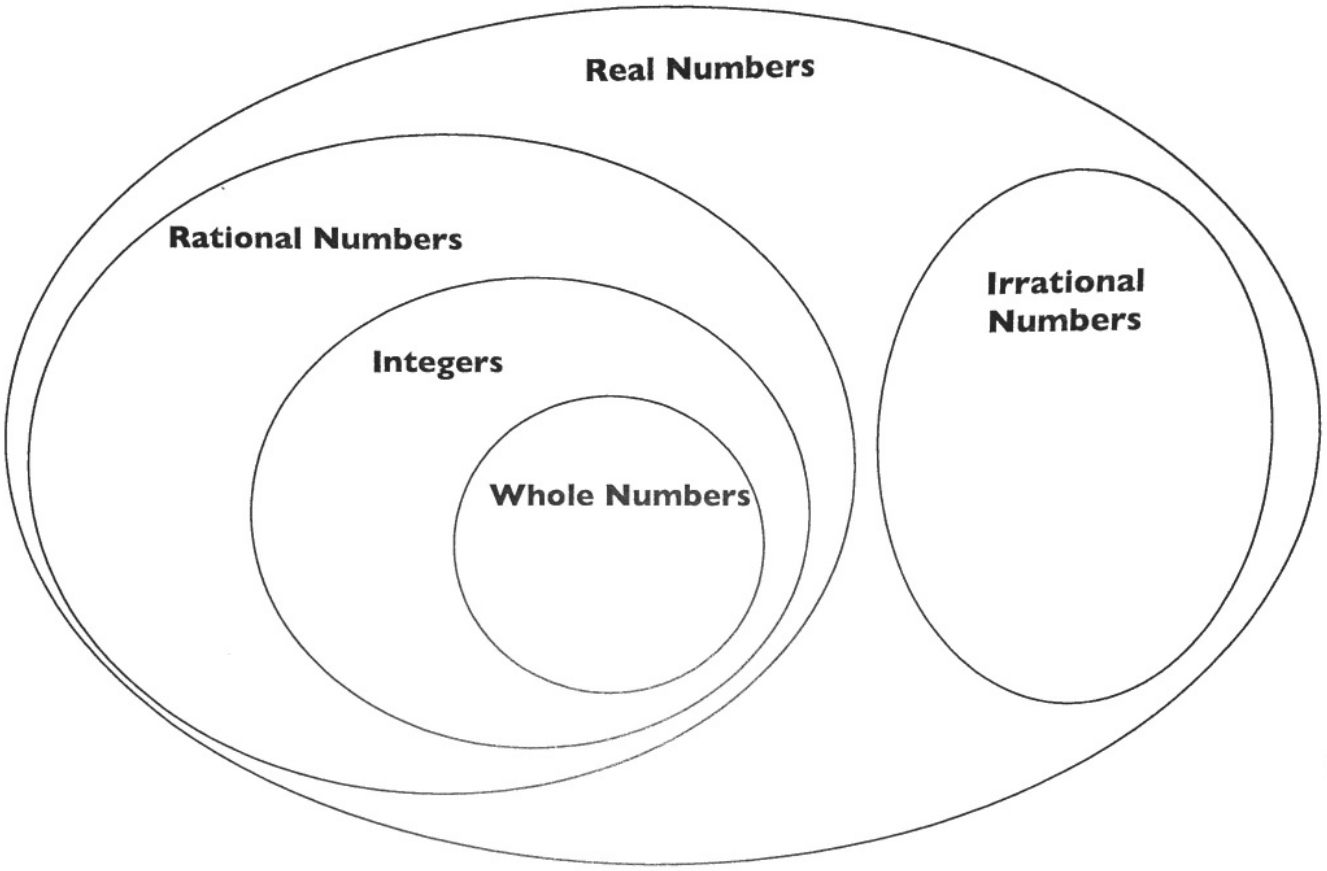
Venn Diagram #2:



9) Some Dawgs are Phish.
10) All Byrds are Dawgs.
11) All Dawgs are Byrds.
12) If you're not a Phish, you must be a Byrd.
13) No Phish are Byrds.
14) All Dawgs are Phish.
15) If you are both Phish and Byrd, you must be a Dawg too.
16) Some Dawgs are not Byrds.

17) Write each number in the correct location on the Venn Diagram of the real number system. Each number should be written only once.

$\left\{3,\ 2.09824...,\ \sqrt{25},\ \sqrt{24},\ \frac{2}{5},\ -100,\ -7,\ \pi,\ -\frac{2}{5},\ 6.5,\ -3.0\overline{1},\ 3\frac{2}{7}\right\}$



18) List the numbers in the set $\left\{-17,\ 0,\ \sqrt{3},\ -\frac{1}{6},\ \frac{5}{7},\ 7.99,\ 8,\ \pi,\ 0.03986...,\ 0.\overline{53}\right\}$ that are:

Whole numbers

Integers

Rational numbers

Irrational numbers

Real numbers

19) True or false? If false, explain why.

a. Some **irrational numbers** are **integers**.

b. All **rational numbers** are **whole numbers.**

c. If a number is **not** an **integer**, then it is **not** a **whole number**.

d. If a number is **not** an **integer**, then it is **not** a **rational number**.

e. Some **irrational numbers** are **not real numbers**.

f. No **rational numbers** are **integers**.

20) Put a check mark for each set that the number is a part of.

	Whole Numbers	Integers	Rational Numbers	Irrational Numbers	Real Numbers
0					
2.07					
-35					
$\sqrt{7}$					
$\frac{7}{3}$					

21) Write each number in **fraction** form.

-25	7	0.25	2.913
$3\frac{5}{7}$	0.002	$8\frac{1}{9}$	0.5555