

Quiz 4 (8 POINTS TOTAL)

MATH 017, SPRING 2016

NAME:

SECTION:

Problem 1 How many subsets does $\{1, 5, 7, 9, 2\}$ have?

- (a) 25
- (b) 16
- (c) 10
- (d) 32

Problem 2 Let $U = \{x \mid x \text{ is a textbook}\}$, $H = \{x \mid x \text{ is a history textbook}\}$, and $J = \{x \mid x \text{ is a textbook written by Dr. Jones}\}$. (Note that U is the universe of discourse.) Describe, in words, the set $H \cap J'$.

- (a) All history textbooks not written by Dr. Jones.
- (b) All textbooks written by Dr. Jones which are not about history.
- (c) All textbooks which are about history or written by Dr. Jones.
- (d) All textbooks which are about history or not written by Dr. Jones.

Problem 3 Suppose that out of a group of 52 students, 25 of them work on-campus and 30 of them work off-campus. All 52 students have a job. Some have both on-campus and off-campus jobs.

(i) Draw a Venn diagram corresponding to the given information. Use the following identifications: A is the set of students who work on-campus, and B the set of students who work off-campus. Shade the region corresponding to the set of students who work on-campus but not off-campus.

(ii) How many of them work both on-campus and off-campus?

(a) 15
(b) 20
(c) 5
(d) 3

Feedback:

1. Any comments (on lectures, homework, quizzes, course, me, etc.)?