

Algebra I
8.4 Worksheet #2
Union and Intersection

NAME: _____
DATE: _____ HOUR: _____

List the integers from 1 to 20 inclusive that are multiples of the following numbers:

1. 6 _____ 2. 9 _____
3. 6 AND 9 _____ 4. 6 OR 9 _____
5. 2 _____ 6. 5 _____
7. 2 OR 5 _____ 8. 2 AND 5 _____

List the integers from 1 to 10 inclusive that are

9. odd. _____ 10. multiples of 5. _____
11. odd AND multiples of 5. _____ 12. odd OR multiples of 5. _____
13. multiples of 4. _____

Sly took a survey to get student opinions about a new graduation requirement. Use the table below for Exercises 14–20.

	Favor requirement	Oppose requirement	Total
Freshman	12	4	16
Sophomore	6	8	14
Junior	9	15	24
Senior	2	21	23
Total	29	48	77

14. How many of those surveyed are freshmen AND oppose the requirement? _____
15. How many of those surveyed are freshmen OR oppose the requirement? _____
16. How many of those surveyed are juniors AND favor the requirement? _____
17. How many of those surveyed are juniors OR favor the requirement? _____
18. How many of those surveyed are seniors OR oppose the requirement? _____
19. How many of those surveyed are seniors AND oppose the requirement? _____
20. How many of those surveyed are sophomores OR favor the requirement? _____

List the integers from 1 to 25 inclusive that are multiples of the following numbers:

1. 3 _____ 2. 4 _____
 3. 5 _____ 4. 10 _____
 5. 3 AND 4 _____ 6. 3 AND 5 _____
 7. 5 OR 10 _____ 8. 5 AND 10 _____

List the integers from 100 to 150 inclusive that are

9. multiples of 10. _____
 10. multiples of 25. _____

At the local state university a certain business class is made up of both Asian and American students. Use the table below for Exercises 11–15 .

	Asian	American	Total
Male	9	10	19
Female	4	12	16
Total	13	22	35

11. How many in this class are female? _____
 12. How many in this class are male AND Asian? _____
 13. How many in this class are male OR Asian? _____
 14. How many in this class are female AND American? _____
 15. How many in this class are female OR American? _____

A survey of student participation in extra curricular activities has the results shown in the following table. Use the table below for Exercises 16–20.

	Participated	Did not participate
Boys	135	189
Girls	98	213

16. How many students are girls AND did not participate? _____
 17. How many students are girls OR did not participate? _____
 18. How many students are boys OR participated? _____
 19. How many students are boys AND participated? _____
 20. How many students are girls OR participated? _____