Closure Worksheet

_ne _____ Date _____

Tell whether or not the given number sets are closed with respect to the indicated operation. If the set is NOT closed, give a counterexample.

1. Even Whole Numbers {0, 2, 4, 6, 8 ...}, + _____

2. Odd Integers {...-5, -3 , -1, 1, 3, 5...}, - _____

3. Odd Integers {...-5, -3 , -1, 1, 3, 5...}, + _____

4. Odd Integers {...-5, -3 , -1, 1, 3, 5...}, × _____

5. Negative Odd Integers {...-7, -5, -3, -1}, + _____

6. Natural Numbers {1, 2, 3, 4...}, - _____

7. Natural Numbers {1, 2, 3, 4...}, + _____

8. Rational Numbers, + _____

9. Rational Numbers, - _____

10. Rational Numbers, ÷ _____

11. Rational Numbers, × _____

12. {1, 2, 4, 8, 16...}, × _____

13. {1, 2, 3, 4}, × _____

4. {0, 5, 10, 15, 25...}+ _____

15. {-1, 0, 1}, × _____