

Name _____

Divisibility Rule

1) Find all possible values of a for which the number $7a3$ is divisible by 3. Also find each such number.

$$a = 2, 5, 8$$

The required numbers are 723, 753 and 783

2) Find all possible values of a for which the number $320b$ is divisible by 3. Also find each such number.

$$b = 1, 4, 7$$

The required numbers are 3201, 3204 and 3207

3) Find all possible values of a for which the number $53c1$ is divisible by 3. Also find each such number.

$$c = 0, 3, 6, 9$$

The required numbers are 5301, 5331, 5361 and 5391

4) Find all possible values of a for which the number $d806$ is divisible by 9. Also find each such number.

$$d = 4$$

The required number is 4806

5) Find all possible values of a for which the number $471e8$ is divisible by 9. Also find each such number.

$$e = 7$$

The required number is 47178

6) Find all possible values of a for which the number $51f3$ is divisible by 9. Also find each such number.

$$f = 0, 9$$

The required numbers are 5103 and 5193