***Divisibility Rules***

Name: Div: Date:

**2** – Number ends in an even digit (0,2,4,6,8)

**3** – Sum of the digits is divisible by 3 (Adds to multiple of 3 = 3, 6, 9, 12, 15…)

e.g. 912 = 9+1+2= 12; also, 12 becomes 1+2 = 3

**4** – Last two digits of the number are divisible by 4 (e.g. 93, 724 => 24 is divisible by 4 therefore, so is 93,724!

**5** – Numbers ends in a 5 or 0

**Tip:** Any factor of a working divisibility rule will also work:

Anything divisible by 8 will also be divisible by 2 & 4 (2 x 4 = 8)

Anything divisible by 9 will also be divisible by 3 (3x3 = 9)

Anything divisible by 10 will also be divisible by 2 & 5 (2 x 5 = 10)

**6** – Number is divisible by both 2 & 3

**8** – Last 3 digits are divisible by 8

e.g. 123,576, 104 => 104 = 8 x 13 so the whole number is divisible by 8

**9** - Sum of the digits is divisible by 9, or adds to 9.

e.g. 666 => 6+6+6 =18 = divisible by 9; also 18 becomes 1+8 = 9!

**10** – Number ends in a zero!

***Divisibility Rules***

Name: Div.: Date:

Check off all the possible factors these numbers are divisible by:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | Explain How You Knew It was divisible by those values: |
| 72 | X | X | X |  | X | X | X |  | 2 = ended in even; 7+2 = 9 so divisible by 9 & 3; divisible by 2 & 3 = divisible by 6; 72 ÷ 4= 18; 8x9=72 |
| 396 |  |  |  |  |  |  |  |  |  |
| 36 |  |  |  |  |  |  |  |  |  |
| 3,060 |  |  |  |  |  |  |  |  |  |
| 60,120 |  |  |  |  |  |  |  |  |  |
| 220 |  |  |  |  |  |  |  |  |  |
| 90,716 |  |  |  |  |  |  |  |  |  |
| 711 |  |  |  |  |  |  |  |  |  |
| 24 |  |  |  |  |  |  |  |  |  |
| 5,553 |  |  |  |  |  |  |  |  |  |
| 225 |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |
| 24,680 |  |  |  |  |  |  |  |  |  |
| 2,760 |  |  |  |  |  |  |  |  |  |
| 855 |  |  |  |  |  |  |  |  |  |
| 45 |  |  |  |  |  |  |  |  |  |
| 3,790 |  |  |  |  |  |  |  |  |  |
| 94,248 |  |  |  |  |  |  |  |  |  |
| 5,232 |  |  |  |  |  |  |  |  |  |
| 1,232,028 |  |  |  |  |  |  |  |  |  |