

Divisibility Rules

Name: _____

Date: _____

$$\frac{\quad}{56} = \frac{\quad}{\quad}\%$$

The Divisibility rules help you to find factors. A number is divisible by:

- 2 ---> if it is an **even** number (e.g. 14, 38, 106);
- 3 ---> if the **sum** of the digits is divisible by 3 (e.g. 117, 72, 435, 111);
- 4 ---> if the last **two** digits are divisible by 4 (e.g. 112, 3904, 716);
- 5 ---> if it ends in 0 or 5 (e.g. 315, 8010, 735);
- 6 ---> if it is divisible by 2 and 3 (e.g. 222, 54, 930);
- 8 ---> if the last **three** digits are divisible by 8 (e.g. 1080, 2800, 7400);
- 9 ---> if the sum of the **digits** is divisible by 9 (e.g. 117, 2151);
- 10 ---> if it ends in 0 (e.g. 2090, 320, 4450, 10020).

You can also find out if a number is divisible by any product of the numbers above. A number can be divisible by 15 if that number is divisible by 3 and 5 because $3 \times 5 = 15$.

So 2025 is divisible by 15 because it is divisible by 3 and 5.

2. Circle the following numbers that are divisible by 3.

<u> </u>	630	1701	960	1412	954	2354
8	763	4251	885	5241	62 160	28 312

3. Circle the following numbers that are divisible by 4.

<u> </u>	324	630	7168	3354	976	894
8	6528	480	2616	84	6082	35 636

4. Circle the following numbers that are divisible by 6.

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3

876 789 4230 888 8433 124

5. Circle the following numbers that are divisible by 8.

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4

2168 3124 4128 42 168 53 124 74 128

6. Circle the following numbers that are divisible by 9.

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4

181 2015 5409 70 245 702 108

7. The number 3240 is divisible by what numbers from 2 to 10?

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8

8. The number 17 535 is divisible by what numbers from 2 to 10?

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2

9. Use the numbers in this box to answer the following questions.

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12

93	42	114	51	81
216	186	498	1232	

a. Which are divisible by 2 and 3? _____

b. Which are divisible by 3 and 9? _____

c. Which are divisible by 6? _____

10. Circle the following numbers that are divisible by 15.

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3

30 95 75 1230 5555

11. Circle the following numbers that are divisible by 18.

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4

234 1818 99 990 18 918 98