# Divisibility Rules

A number is **DIVISIBLE** by another number, if the number can be divided by that number without any remainder, e.g. **9** is divisible by **3**, because **9 ÷ 3 = 3** without any remainder.

There are specific rules that make it easier to test if a number is divisible by another number.

| Number | Rule | Example |
|:---:|:---|:---|
| **2** | All **even** numbers are always divisible by **2** | 456 78**4** will be divisible by **2** |
| **5** | All numbers with either a **zero (0) or a five (5)** in the **Units** place, are divisible by **5** | 345 78**5** and 999 99**0** will be divisible by **5** |
| **10** | All numbers with a **zero (0) in the Units** place, are divisible by **10** | 109 78**0** will be divisible by **10** |
| **3** | If the **sum of the digits of a number** is divisible by 3, then the original number will also be divisible by **3** | 750: **7+5+0 = 12**, 12÷**3** = 4, 750 will be divisible by **3** |
| **4** | If the **last two digits** of a number are divisible by 4, the number will also be divisible by **4** | 45 7**16**: **16÷4= 4**, 45 716 will be divisible by **4** |
| **6** | If a number is divisible by **2 and by 3** then the number will be divisible by **6** | 35**4**: Divisible by **2**, **3+5+4 = 12**, 12÷**3** = 4, 354 will be divisible by **6**. |
| **8** | If the **last three digits** of a number are divisible by 8, the number will also be divisible by **8** | |
| **9** | If the **sum of the digits** of a number is divisible by 9, then the original number will also be divisible by **9** | 6 984: **6+9+8+4= 27**, 27÷**9** = 3, 6 984 is divisible by **9** |

*Tick the box if the number is divisible by the given numbers:*

| Number | ÷ 2 | ÷3 | ÷ 4 | ÷ 5 | ÷ 6 | ÷ 8 | ÷ 9 | ÷10 |
|:---:|:---:|:---:|:---:|:---:|:---:|:---:|:---:|:---:|
| 5 841 | | | | | | | | |
| 760 240 | | | | | | | | |
| 108 405 | | | | | | | | |
| 936 | | | | | | | | |
| 77 085 | | | | | | | | |

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| Number | ÷ 2 | ÷3 | ÷4 | ÷5 | ÷6 | ÷8 | ÷9 | ÷10 |
|--------|-----|-----|-----|-----|-----|-----|-----|------|
| 5 841 | | ✅ | | | | | ✅ | |
| 760 240 | ✅ | | ✅ | ✅ | | ✅ | | ✅ |
| 108 405 | | ✅ | | ✅ | | | ✅ | |
| 936 | ✅ | ✅ | ✅ | | ✅ | ✅ | ✅ | |
| 77 085 | | ✅ | | ✅ | | | ✅ | |