Divisibility & Remainders

Advanced — ANSWER KEY

Bigger numbers, combined checks.

Think: Divisible by 6 means divisible by BOTH 2 and 3. Check each on its own.

1. Answers with the thinking.

1) What is the remainder of 488 ÷ 9? **2**
↳ *9 × 54 = 486*

2) What is the smallest number GREATER than 321 that is divisible by 7? **322**
↳ *322 = 7 × 46*

3) What is the smallest number GREATER than 284 that is divisible by 9? **288**
↳ *288 = 9 × 32*

4) Is 254 divisible by 6? (It must be divisible by BOTH 2 and 3.) **no**
↳ *by 2: yes; by 3: no*

5) Is 52 divisible by 6? (It must be divisible by BOTH 2 and 3.) **no**
↳ *by 2: yes; by 3: no*

6) What is the remainder of 335 ÷ 8? **7**
↳ *8 × 41 = 328*

7) Is 292 divisible by 6? (It must be divisible by BOTH 2 and 3.) **no**
↳ *by 2: yes; by 3: no*

8) What is the smallest number GREATER than 152 that is divisible by 8? **160**
↳ *160 = 8 × 20*

9) Is 236 divisible by 6? (It must be divisible by BOTH 2 and 3.) **no**
↳ *by 2: yes; by 3: no*

10) What is the remainder of 244 ÷ 7? **6**
↳ *7 × 34 = 238*

11) Is 233 divisible by 6? (It must be divisible by BOTH 2 and 3.) **no**
↳ *by 2: no; by 3: no*

12) Is 43 divisible by 6? (It must be divisible by BOTH 2 and 3.) **no**
↳ *by 2: no; by 3: no*