

A. Write YES if the number is divisible by the given divisor and NO if it is not. Explain mentally using divisibility rules. (15 points)

No.	Number	Divisible by	Answer
1.	145,728	8	
2.	836,415	9	
3.	72,930	6	
4.	521,064	12	
5.	999,999	11	
6.	456,789	3	
7.	785,425	5	
8.	632,448	4	
9.	1,234,567	7	
10.	888,888	12	
11.	450,360	10	
12.	912,576	8	
13.	707,707	7	
14.	654,321	9	
15.	246,824	2	

B. Complete the Divisibility Table. Put \checkmark if divisible and \times if not. (20 points)

Number	2	3	4	5	6	8	9	10	11	12
48,960										
315,720										
901,248										
765,432										
1,111,110										

C. Multiple Choice – Choose the correct answer. (10 points)

1. A number is divisible by 12 if it is divisible by:

- A. 2 and 3
- B. 3 and 4
- C. 4 and 6
- D. 6 and 8

2. Which number is divisible by both 8 and 9?

- A. 12,345
- B. 45,360
- C. 78,912
- D. 63,214

3. Which number is NOT divisible by 6?

- A. 42,318
- B. 123,456
- C. 75,423
- D. 987,654

4. Which statement is TRUE?

- A. All numbers divisible by 4 are divisible by 8.
- B. All numbers divisible by 9 are divisible by 3.
- C. All numbers divisible by 3 are divisible by 9.
- D. All odd numbers are divisible by 5.

5. A number ending in 0 is always divisible by:

- A. 3
- B. 6
- C. 10
- D. 12

D. Problem Solving – Apply the Divisibility Rules. Show your reasoning. (5 points)

1. A school has **18,936 books**. The librarian wants to arrange them equally into **12 shelves**. Can all books be arranged equally? Explain.

2. A factory produced **725,418 items**. Can these items be packed equally into boxes of **9 pieces each**? Why?

3. Find the missing digit:
52,3_6 is divisible by 9.
What digit should replace the blank?

4. Without dividing, determine if **987,624** is divisible by **6 and 8**. Explain.

5. A number is divisible by **3 and 4**. Is it always divisible by **12**? Explain.