

Year 5: Tests of divisibility: answers

Year 5 - Prime Numbers, Factors, Squares and Cubes - Lesson 3.2

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-5/ch03-factors-primes-squares-cubes/tests-of-divisibility/

Exercise 3B Tests of divisibility Non-calculator

1 Is each number divisible by 2, by 5 or by 10? Write which of these it is divisible by.

(a) 1,230

Answer: 2, 5, 10

(b) 4,375

Answer: 5

(c) 508

Answer: 2

(d) 6,000

Answer: 2, 5, 10

2 Add the digits to test for 3. Is each number divisible by 3? Write Yes or No.

(a) 51

Answer: Yes

(b) 124

Answer: No

(c) 372

Answer: Yes

(d) 1,005

Answer: Yes

3 Add the digits to test for 9. Is each number divisible by 9? Write Yes or No.

(a) 63

Answer: Yes

(b) 117

Answer: Yes

(c) 4,321

Answer: No

(d) 8,073

Answer: Yes

4 Is each number divisible by 4? Write Yes or No.

(a) 124

Answer: Yes

(b) 350

Answer: No

(c) 1,516

Answer: Yes

(d) 2,038

Answer: No

5 Halve each number three times. Is it divisible by 8? Write Yes or No.

(a) 136

Answer: Yes

(b) 420

Answer: No

(c) 5,648

Answer: Yes

(d) 7,300

Answer: No

6 Is each number divisible by 25 or by 100? Write which of these it is divisible by.

(a) 450

Answer: 25

(b) 1,375

Answer: 25

(c) 3,600

Answer: 25, 100

(d) 2,090

Answer: None of them

7 Is each number divisible by 6? Write Yes or No.

(a) 42

Answer: Yes

(b) 75

Answer: No

(c) 138

Answer: Yes

(d) 1,014

Answer: Yes

8 Which of these numbers are divisible by **both** 3 and 4? 24, 30, 36, 40, 48, 54, 60, 100

Answer: 24, 36, 48, 60

9 Mia has a three-digit number: 4 6. The number is divisible by 3. Which digits could be in the box?

Answer: 2, 5 or 8

10 Aisha has 756 stickers. Can she share them equally, with none left over, between...

(a) 9 friends?

Answer: Yes

(b) 4 friends?

Answer: Yes

(c) 8 friends?

Answer: No

11 Zainab says, "2,136 is not divisible by 4, because 6 is not in the 4 times table." Zainab is wrong. Explain her mistake and say whether 2,136 is divisible by 4.

Answer: Yes, 2,136 is divisible by 4, because 36 is.

12 Always, sometimes or never?

(a) A number divisible by 9 is divisible by 3.

Answer: Always

(b) A number divisible by 3 is divisible by 9.

Answer: Sometimes

13 Leo says, "A number is divisible by 6 if its last digit is 6." Is Leo right? Give an example to show.

Answer: No. 16 ends in 6 but is not divisible by 6.

14 Zara has three digit cards: 3, 4 and 5. She says, "I can use all three cards to make a number that is divisible by 4." Is Zara right? Show how you know.

Answer: No. None of the six numbers is divisible by 4.