

Classify a number as prime or composite

NAME	DATE	SCORE / 10
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1 Is 49 prime or composite, and why?

- ☐ Composite: 7 is a factor
 ☐ Prime: only 1 and 49 are factors
 ☐ Composite: 4 is a factor
☐ Composite: 9 is a factor

2 Ana wants to set out 69 chairs in equal rows. There must be more than one row, and more than one chair in each row. Can Ana use all 69 chairs?

- ☐ No, 69 is prime
 ☐ Yes, in rows of 9 chairs
 ☐ Yes, in rows of 3 chairs
☐ Yes, in rows of 6 chairs

3 Which of these numbers are prime?

Tick every answer that is true.

- ☐ **A** 37
☐ **B** 71
☐ **C** 67
☐ **D** 49
☐ **E** 27

4 Maya says that every odd number is prime. Write an odd number from 30 to 50 that shows Maya is wrong.

5 “A number with more than two factors is composite.” Is this always, sometimes or never true?

- ☐ Always true
 ☐ Sometimes true
 ☐ Never true

6

“A prime number less than 12 is odd.” Is this always, sometimes or never true? Explain how you know.

7

Is 61 prime or composite, and why?

- ☐ Composite: 7 is a factor ☐ Composite: 3 is a factor ☐ Prime: only 1 and 61 are factors
☐ Composite: 6 is a factor

8

Is 41 prime or composite, and why?

- ☐ Prime: only 1 and 41 are factors ☐ Composite: 4 is a factor ☐ Composite: 3 is a factor
☐ Composite: 7 is a factor

9

Is 25 prime or composite, and why?

- ☐ Prime: only 1 and 25 are factors ☐ Composite: 3 is a factor ☐ Composite: 5 is a factor
☐ Composite: 2 is a factor

10

Is 79 prime or composite, and why?

- ☐ Composite: 3 is a factor ☐ Composite: 9 is a factor ☐ Composite: 7 is a factor
☐ Prime: only 1 and 79 are factors

Classify a number as prime or composite

1 Composite: 7 is a factor

3 A, B, C

Tick exactly these: A: 37; B: 71; C: 67. One missed or one extra is wrong.

5 Always true

8 Prime: only 1 and 41 are factors

10 Prime: only 1 and 79 are factors

6 A written explanation

2 Yes, in rows of 3 chairs

4 33

Any one of these is right too: 35, 39, 45, 49.

7 Prime: only 1 and 61 are factors

9 Composite: 5 is a factor

A model answer: Sometimes true. 2 is a prime number less than 12, because its only factors are 1 and 2, and 2 is even. Other primes less than 12, such as 3, 5 and 7, are odd.

What counts as right: Counts as right if it makes these points: (1) the answer, sometimes true; (2) 2 is prime, because its only factors are 1 and 2, and 2 is even; (3) other primes, such as 3, 5 and 7, are odd. Saying that most primes are odd, without naming 2, does not count.