

Y5 Factors Primes

KS2 Y5 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Find all the factor pairs of 36.

Step 1 · Start at 1 and work up

1×36 , 2×18 , 3×12 , 4×9

Step 2 · 5 does not divide 36

skip it

Step 3 · 6×6

a pair with itself, so stop here

Answer: 1×36 , 2×18 , 3×12 , 4×9 , 6×6

Check: Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36. That is 9 factors ✓

2. Now try one with the steps

Is 84 a multiple of 7?

Step 1 · Use known facts

Step 2 · 84 is in the 7 times table

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. List the first six multiples of 8.

2. Is 63 a multiple of 9? Write yes or no.

3. List all the factors of 18.

4. Write all the factor pairs of 20.

5. How many factors does 16 have?

6. Which of these are factors of 30: 4, 5, 6, 8, 10?

7. Which of these are multiples of 6: 26, 36, 46, 54, 64?

8. List all the factors of 48.

9. List the common factors of 12 and 30.

10. What is the greatest common factor of 40 and 56?

11. What is the smallest number that is a multiple of both 6 and 8?

12. I am a multiple of 7. I am a factor of 70. I am even and less than 50. What number am I?

13. Chairs are set out in equal rows. There are 42 chairs. How many different ways can they be arranged in rows (each row with more than 1 chair, and more than 1 row)?

14. Ola buys pencils in packs of 6 and rubbers in packs of 4. She wants the same number of each. What is the smallest number of each she could buy?

4. Before you hand it in

Saying 4 is a multiple of 12.

Factors go INTO a number; multiples come OUT of times tables. 4 is a factor of 12, and 12 is a multiple of 4.

Listing the factors of 36 as 1, 2, 3, 4, 6, 6, 9, 12, 18, 36.

6×6 is one pair, but 6 is only one factor. 36 has 9 factors.

Missing factors, for example listing 1, 2, 24, 48 for 48.

Test 1, 2, 3, 4 ... in order, writing each pair, until the pairs meet in the middle.

Forgetting that 1 and the number itself are factors.

Every whole number (above 1) has at least two factors: 1 and itself.