

Luna's Space Adventure

Grade 4 · Factors and primes · 4.OA.B.4

Name _____

Date _____



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

List the factors

Every number that divides it evenly.

Factors of 16: _____

Factors of 45: _____

Factors of 30: _____

Factors of 18: _____

Prime or composite?

A prime has exactly two factors.

37	prime	composite	99	prime	composite
78	prime	composite	3	prime	composite
23	prime	composite	91	prime	composite
31	prime	composite	56	prime	composite

Multiples

List the first five multiples.

Multiples of 5: _____

Multiples of 3: _____

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ANSWER KEY



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

List the factors Every number that divides it evenly.

Factors of 16:

1, 2, 4, 8, 16

Factors of 45:

1, 3, 5, 9, 15, 45

Factors of 30:

1, 2, 3, 5, 6, 10, 15, 30

Factors of 18:

1, 2, 3, 6, 9, 18

Prime or composite? A prime has exactly two factors.

37	prime	composite	99	prime	composite
78	prime	composite	3	prime	composite
23	prime	composite	91	prime	composite
31	prime	composite	56	prime	composite

Multiples List the first five multiples.

Multiples of 5:

5, 10, 15, 20, 25

Multiples of 3:

3, 6, 9, 12, 15

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GUIDE

① What this sheet practises

Finding every factor pair of a number, listing multiples, and telling prime numbers (exactly two factors) from composite numbers (more than two).

② A problem from the sheet, worked out

List the factors Every number that divides it evenly.

Factors of 16:

1, 2, 4, 8, 16

Factors of 45:

1, 3, 5, 9, 15, 45

Factors of 30:

1, 2, 3, 5, 6, 10, 15, 30

Factors of 18:

1, 2, 3, 6, 9, 18

How: Start with 1 times the number, then try 2, 3, 4 and so on, writing each pair that works. Stop when the pairs start to repeat. Only two factors means prime.

③ Words to know

factor a number that divides another evenly

multiple a number times 1, 2, 3 and so on

prime a number with exactly two factors

composite a number with more than two factors

④ Watch for

- Leaving 1 or the number itself out of the list of factors.
- Calling 1 prime: it has only one factor.
- Calling every odd number prime: 9, 15 and 21 are composite.

⑤ Where it fits

BEFORE

3.OA.C.7

Multiply and divide within 100, and know the times tables from memory.

THIS SHEET

4.OA.B.4

Find factor pairs and multiples, and tell prime from composite numbers.

NEXT

5.NF.A.1

Add and subtract fractions with unlike denominators.

⑥ Helping at home

Arrange 12 coins or buttons into as many different rectangles as you can: 1 by 12, 2 by 6, 3 by 4. Each rectangle is a factor pair.