

TARGET To find all the factors of a number and common factors of two numbers.

Factors are numbers that divide exactly into another number.

Two or more numbers may have common factors as well as 1.

The largest of these is the highest common factor.

Examples

Factors of 12

1, 2, 3, 4, 6, 12

Factors of 30

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

Common factors of 12 and 30

1, 2, 3, 6

Highest common factor of 12 and 30 is 6.

A

Copy and complete the second factor in each pair.

1 $16 \rightarrow 2$ and

2 $35 \rightarrow 7$ and

3 $44 \rightarrow 11$ and

4 $27 \rightarrow 3$ and

5 $40 \rightarrow 5$ and

6 $24 \rightarrow 8$ and

7 $90 \rightarrow 9$ and

8 $48 \rightarrow 6$ and

9 $28 \rightarrow 4$ and

10 $72 \rightarrow 12$ and

11 $100 \rightarrow 2$ and

12 $5 \rightarrow 5$ and

Find all the factors of the following numbers. The number of factors is shown in brackets.

13 8 (4) 17 15 (4)

14 25 (3) 18 32 (6)

15 22 (4) 19 60 (12)

16 18 (6) 20 36 (9)

B

Find all the factors of:

1 98 9 90

2 52 10 132

3 66 11 140

4 63 12 108

5 48 13 127

6 84 14 117

7 102 15 124

8 78 16 112.

Find the common factors of each pair of numbers.

17 6, 9 25 15, 20

18 8, 10 26 14, 35

19 12, 16 27 8, 12

20 18, 30 28 6, 14

21 20, 30 29 24, 36

22 40, 100 30 12, 18

23 24, 32 31 20, 25

24 12, 15 32 27, 36

C

Find all the factors of:

1 133 5 176

2 138 6 182

3 144 7 184

4 162 8 250.

Find the highest common factor of each group of numbers.

9 6, 12, 16

10 10, 25, 100

11 16, 24, 40

12 6, 12, 24

13 20, 50, 100

14 9, 12, 18

15 8, 16, 20

16 21, 28, 35

17 50, 75, 100

18 18, 36, 72

19 30, 60, 75

20 36, 48, 60