Multiplication Square

This can be a helpful tool to find different factors.

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Task 1 - Factor Bugs

Factor Pairs ☆☆ Fluency & precision 4

One half of the bug has been completed. Find all of the factors and complete the factor bugs.

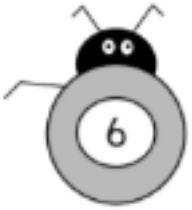
4 has _____ factors.
The factors of 4 are

15 has _____ factors.
The factors of 15 are

28 has _____ factors.
The factors of 28 are

30 has _____ factors.
The factors of 30 are

8 has _____ factors.
The factors of 8 are



6 has _____ factors.
The factors of 6 are

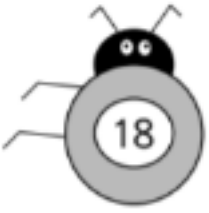
10 has _____ factors.
The factors of 10 are

26 has _____ factors.
The factors of 26 are

22 has _____ factors.
The factors of 22 are

21 has _____ factors.
The factors of 21 are

12 has _____ factors.
The factors of 12 are



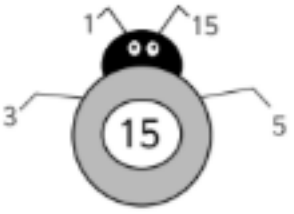
18 has _____ factors.
The factors of 18 are

Task 1 Answers

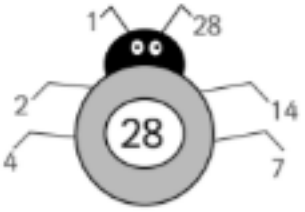
Factor Pairs ☆☆☆ Answers Fluency & precision 4

One half of the bug has been completed. Find all of the factors and complete the factor bugs.

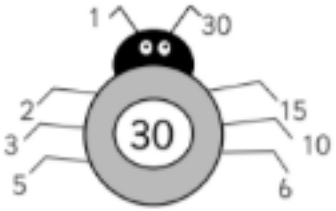
4 has 3 factors.
The factors of 4 are
1, 2, 4



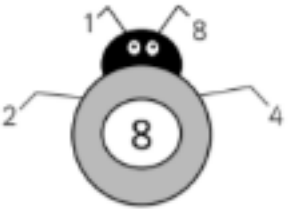
15 has 4 factors.
The factors of 15 are
1, 3, 5, 15



28 has 6 factors.
The factors of 28 are
1, 2, 4, 7, 14, 28

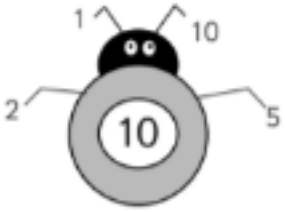


30 has 8 factors.
The factors of 30 are
1, 2, 3, 5, 6, 10, 15, 30

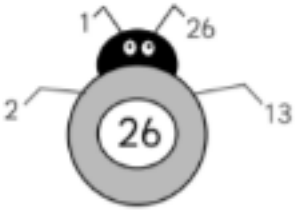


8 has 4 factors.
The factors of 8 are
1, 2, 4, 8

6 has 4 factors.
The factors of 6 are
1, 2, 3, 6

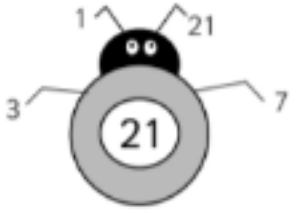


10 has 4 factors.
The factors of 10 are
1, 2, 5, 10

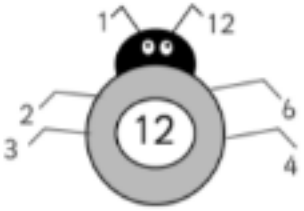


26 has 4 factors.
The factors of 26 are
1, 2, 13, 26

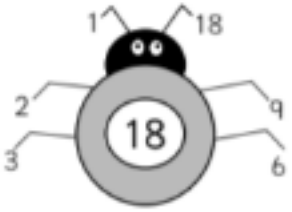
22 has 4 factors.
The factors of 22 are
1, 2, 11, 22



21 has 4 factors.
The factors of 21 are
1, 3, 7, 21



12 has 6 factors.
The factors of 12 are
1, 2, 3, 4, 6, 12



18 has 6 factors.
The factors of 18 are
1, 2, 3, 6, 9, 18

Task 2 - Arrays

Factor Pairs ☆☆ Fluency & precision 4

Use counters to answer the questions.

What factor pairs for 30 do these arrays show?

Use counters to create arrays for 36. How many factor pairs can you find?

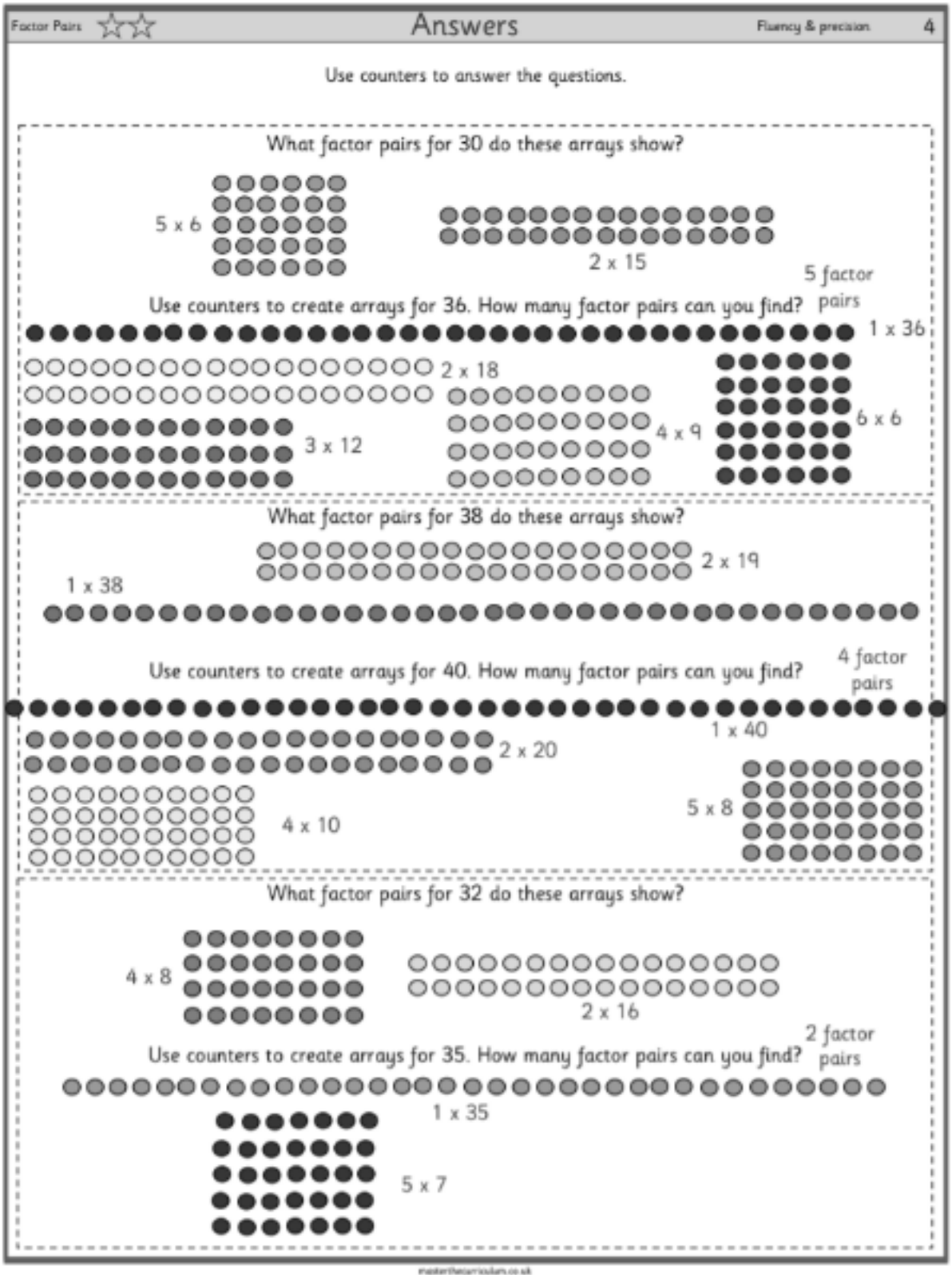
What factor pairs for 38 do these arrays show?

Use counters to create arrays for 40. How many factor pairs can you find?

What factor pairs for 32 do these arrays show?

Use counters to create arrays for 35. How many factor pairs can you find?

Task 2 - Answers



Task 3 - White Rose Maths End of Unit

Factor pairs

1 Alex is making arrays using counters.

a) What calculation is represented in each array?

□ × □ = 18

□ × □ = 18

□ × □ = 18

b) Use your answers from part a) to help you write all the factors of 18

_____

2 Use counters to make arrays and find the factor pairs for each number.

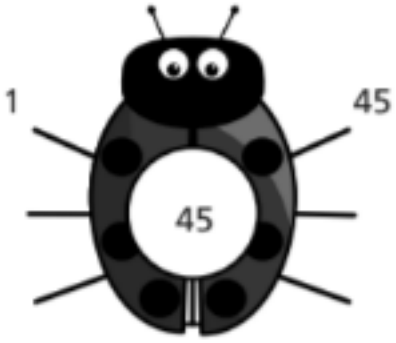
a) 12 _____

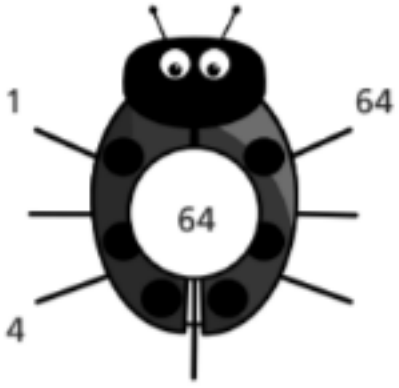
b) 15 _____

c) 24 _____

Which of the numbers has the most factor pairs? _____

3 Complete the factor bugs for 45 and 64





4 Find all the factor pairs for the number 72

The factor pairs of 72 are _____

_____

5 Are these statements true or false?

	True	False
8 and 2 are both factors of 10	☐	☐
5 and 50 are both factors of 50	☐	☐
25 has only three factors.	☐	☐
All the factors of 15 are odd.	☐	☐

Talk about your answers with a partner.

6

The bigger the number the more factor pairs it has.

Use examples to show that Dexter is wrong.

7 Tommy is finding factors of 12 and 18

12 and 18 have the same number of factor pairs.

a) Is Tommy correct? _____

Explain your answer.

b) Find two other numbers with the same number of factor pairs.

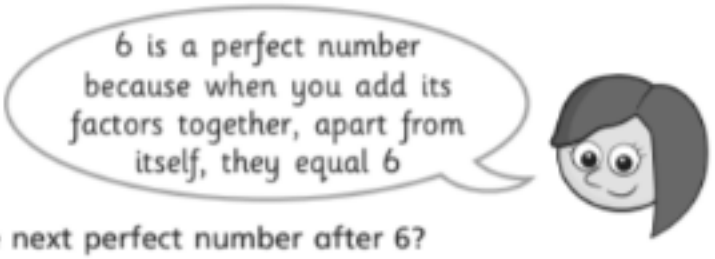
8 Class 4B is having a sports day.

There are 36 children in the class.

The children need to be in equal groups.

What group sizes are possible?

9 Rosie is investigating factor pairs.



What is the next perfect number after 6?

Task 3 Answers

Factor pairs

1 Alex is making arrays using counters.

a) What calculation is represented in each array?

1 × 18 = 18

2 × 9 = 18

3 × 6 = 18

b) Use your answers from part a) to help you write all the factors of 18

1, 2, 3, 6, 9, 18

2 Use counters to make arrays and find the factor pairs for each number.

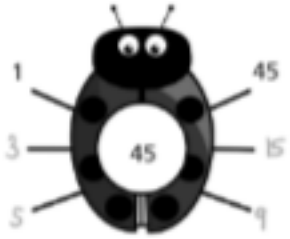
a) 12 1×12 2×6 3×4 1, 2, 3, 4, 6, 12

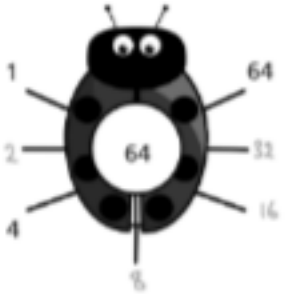
b) 15 1×15 3×5 1, 3, 5, 15

c) 24 1×24 2×12 3×8 4×6 1, 2, 3, 4, 6, 8, 12, 24

Which of the numbers has the most factor pairs? 24

3 Complete the factor bugs for 45 and 64





4 Find all the factor pairs for the number 72

The factor pairs of 72 are 1, 72, 2, 36, 3, 24, 4, 18, 6, 12, 8, 9

5 Are these statements true or false?

	True	False
8 and 2 are both factors of 10	☐	☑
5 and 50 are both factors of 50	☑	☐
25 has only three factors.	☑	☐
All the factors of 15 are odd.	☑	☐

Talk about your answers with a partner.

6

The bigger the number the more factor pairs it has.

Use examples to show that Dexter is wrong.

Eg. 4 has 3 factors (1, 2, 4)

and 5 only has 2. (1, 5)

7 Tommy is finding factors of 12 and 18

12 and 18 have the same number of factor pairs.

a) Is Tommy correct? Yes

Explain your answer.

They both have 3 factor pairs and so 6 factors.

b) Find two other numbers with the same number of factor pairs.

Eg. 32 and 50

8 Class 4B is having a sports day.

There are 36 children in the class.

The children need to be in equal groups.

What group sizes are possible?

Eg. 36 groups of 1, 18 groups of 2 etc.

9 Rosie is investigating factor pairs.

6 is a perfect number because when you add its factors together, apart from itself, they equal 6

What is the next perfect number after 6?

28