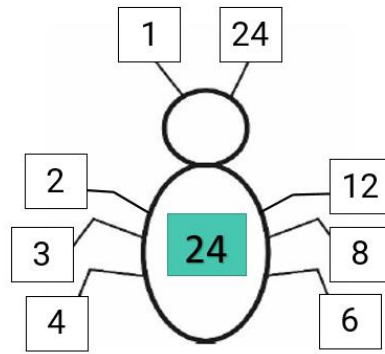


Find and/or recall factors and factor pairs for numbers

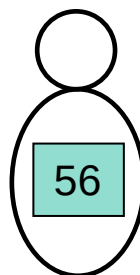
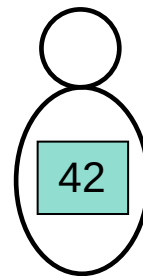
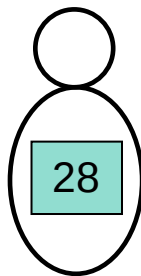
WORKED EXAMPLE



- I know that *the numbers that we multiply are the factors of the product. When 6 is multiplied by 4, the product is 24. This means that two factors of 24 are '6' and '4'. A factor divides a number completely without leaving any remainder. This means that 24 can be divided by four and six. A 'Factor Bug' can be drawn to show the factors of numbers.*
- I have noticed *that the factors of 24 are 1, 2, 3, 4, 6, 8 & 12. I can check this by using my knowledge of multiplication facts and divisibly rules.*
- I can work out *that 7 is not a factor of 24 because 24 cannot be divided by 7 without leaving a remainder. This also means that 24 is not a multiple of 7.*

factor pair multiple product divisible remainder systematic

REHEARSE



Find and/or recall factors and factor pairs for numbers

APPLY AND EXPLORE

Convince me that...

Convince me that 3 is a factor of both 18 and 36

I know that:

I also know that:

Convince me that 9 is not a factor of 39

I know that:

I also know that:

Convince me that 51 is not a multiple of 7

I know that:

I also know that:

Convince me that 28 cannot be divided exactly by 8 without any remainders.

I know that:

I also know that:

APPLY AND EXPLORE

Investigation

Factors

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Which number, from 1 to 50, has the most factors?

As an example, we know the factors of 12 are: 1, 2, 3, 4, 6, 12 so 12 has six factors.

Key Questions:

- Do you have to begin at '1' and work systematically in order?
- Which numbers will only have two factors (themselves and '1')?
- Think about multiples. How will you know which numbers must have more factors and which will have less factors than others?