

Factor bugs, stingers & silkworms

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The Busy Lizzie Maths Library

Factor bugs, stingers and silkworms

What is a factor?

A factor is a number that divides into another number exactly and without leaving a remainder.

For example:

$$24 \div 8 = 3$$

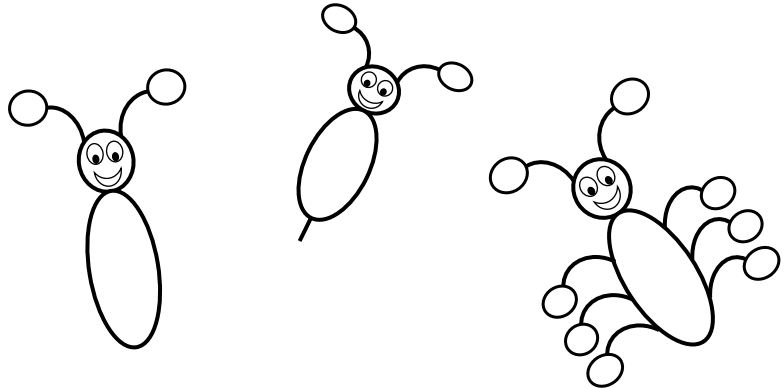
8 is a factor of 24, as it divides exactly without a remainder

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Most numbers have an even number of factors.

12 has 6 factors.

1, 2, 3, 4, 6 and 12.

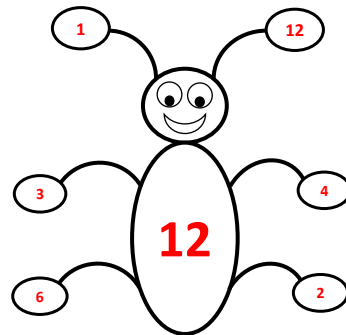


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Drawing factor bugs is a great way to find and record factors.

I always put 1 and the number in the bug's antennae, then the remaining factors at the end of each leg.

This is what a 12 factor bug looks like.



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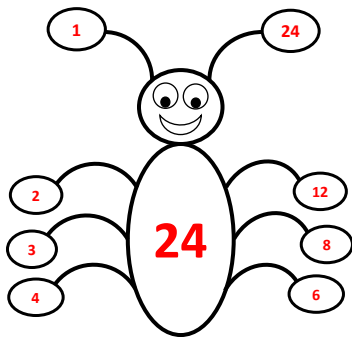
An activity/investigation for Year 5 and Year 6 (10 and 11 year olds).

Give the children a 100 square.

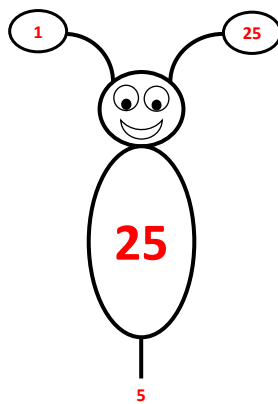
Ask them to pick a number and work out how many factors it has. Record it. Will it be a factor bug, a stinger or a silkworm?

After trying out several numbers, can the children predict which numbers will be factor bugs, stingers or silkworms?

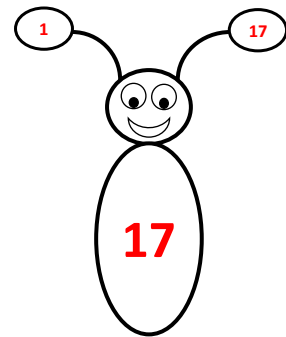
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Factor bug

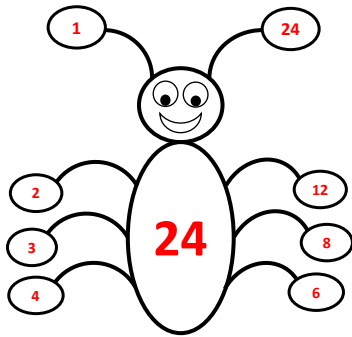


Stinger

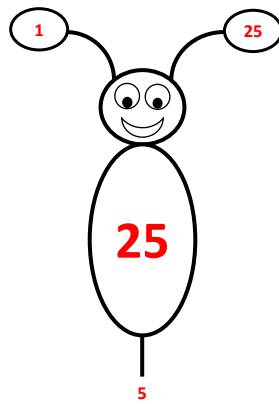


Silkworm

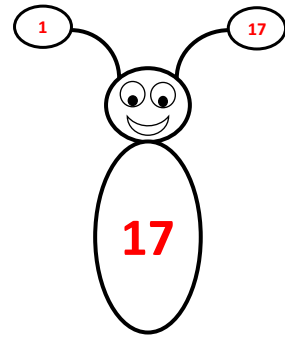
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Factor bug



Stinger
Square numbers



Silkworm
Prime numbers