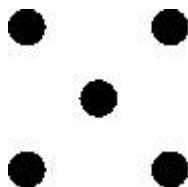
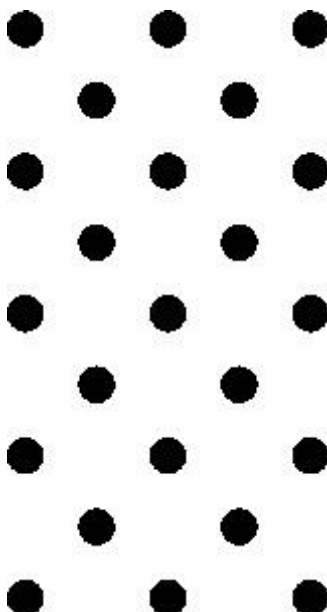


In this problem, we will be looking at the arrangement on the 5 dice:



We can extend this to make something we could call a 3 by 5 or a 5 by 3 arrangement:



Counting these dots, we can see that we have 23 altogether. As this isn't multiplication, we can't use a $\times$ symbol, so instead we can write it as something like $3 ? 5 = 23$.

Now if this were an ordinary thing like multiplication, where you'd use in an ordinary rectangle, you would probably be able to work out the answer from things that you already know, or perhaps you would just know the answer straight away. But with our new operation, '?', it isn't as easy to work out the answer!

Have a go at drawing some arrangements of different sizes and working out the number of dots in each arrangement. Is there a quick way of doing this?

When people learn multiplication tables they often write them out in a big table. You might like to explore what happens if you try a similar idea with doing '?' instead of multiplication and make a ? table instead of a times table.