

Taxman

You need:

A partner
Paper and Pencil

Write the numbers 1 to 6 in a horizontal row. You (Player A) will play the Taxman (Player B). Every time it is your turn, you can take any number in the list, as long as at least one factor of that number is also in the list. You get your number and the Taxman gets all of the factors of that number that are on the list. For example, if you take a 4, the Taxman would get 1 and 2 since those are the factors of 4 left in the list.

The Taxman must get something every time, which means you cannot choose a number if no factors of the number remain on the list. When no number in the list has any factors left in the list, the game is over and the Taxman gets all the numbers that are left in the list.

****Variations:** Try Taxman with the numbers 1 – 10 or the numbers 1 – 12. Can you find a winning strategy for any string of numbers?

Adapted from *Measuring Up: Prototypes for Mathematics Assessment*. Mathematical Sciences Education Board. National Research Council 1993.

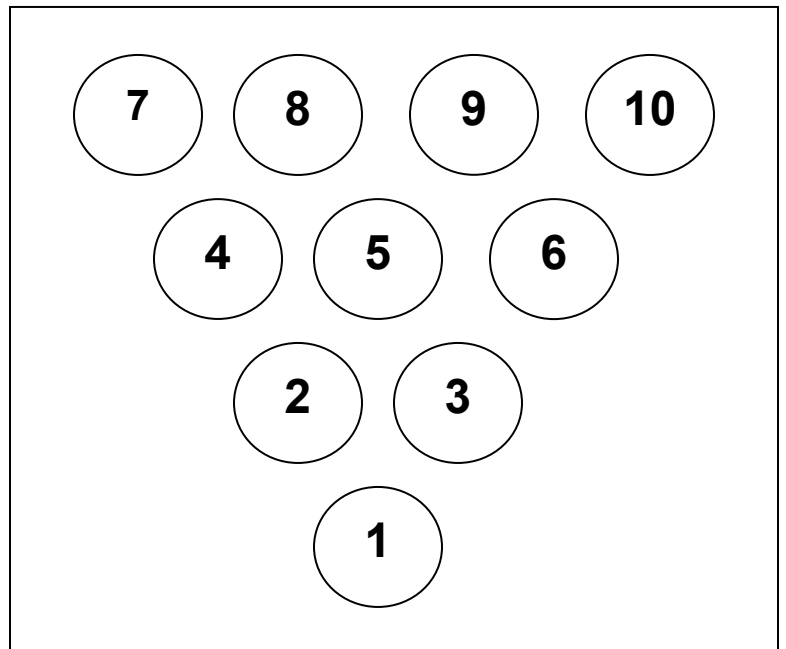
Bowl – A – Fact

You need:

A partner
One die
Paper and Pencil

Draw 10 circles in the same placement as bowling pins and write the numbers 1 – 10 in the circles as shown.

Roll a die three times and record the digits. Work with your partner to write number sentences (using only those three digits) that equal as many of the numbers 1 – 10 as possible. Record each number sentence and cross out the corresponding answer (i.e. pin).



Can you eliminate each of the ten numbers for a strike? If not, roll the die three more times and use those new digits to produce number sentences. Can you get a spare?

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Mathematics Education Collaborative (MEC)

Building Support for School Mathematics: Working with Parents and the Public