



### Battle of the squares

For this game, you need at least two players!  
Each player takes it in turns to draw one line on the square grid.



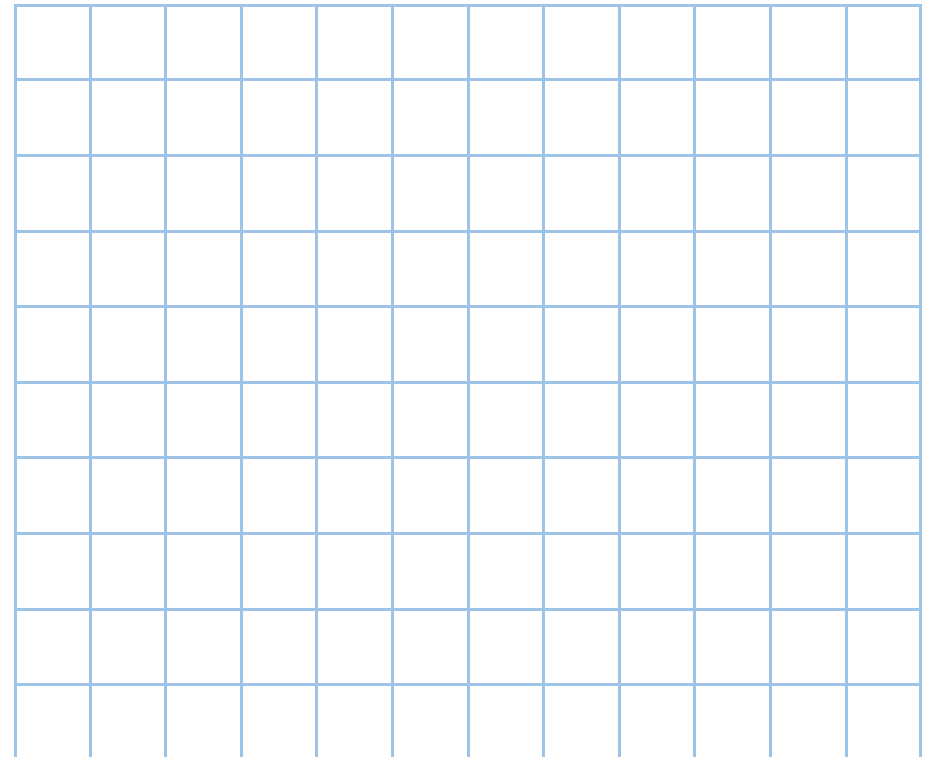
The aim of the game is to complete a square by being the player to draw the last of its sides. (However, be careful not to give away squares to opposition players).



When you complete a square, write the initial of your first name within it.



Once the final square is claimed, calculate the area of the grid each player has seized in square centimetres.



Player 1

Player 3

Player 2

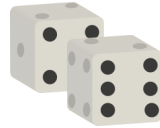
Player 4





## Race to -20

For this game, you need at least two players and a dice!  
Each player starts on 20.



The aim of the game is to reach -20 quicker than the rest of your players.  
Whenever you roll the dice, count back the number shown.

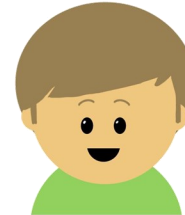


If you are close to -20, you must roll the exact number to finish the game.



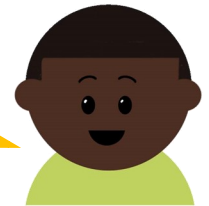
If another player reaches -20 in exactly the same number of rolls as you, you should have another race omitting the additional players to see who wins!

## Let's do this!

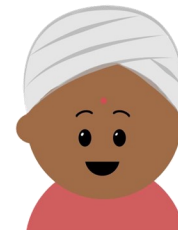


What is the lowest number of rolls you can reach -20 in?

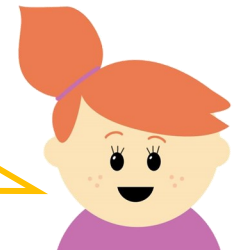
How many different solutions can you find for the lowest number of rolls?



Think about how you can change the rules to make a different version of the game.



How will the rules you create (e.g. only allowing even rolls) affect the solutions and how you win?





## Represent it!

In maths, we can represent fractions of amounts using everyday objects from around our home.

In this example,  $\frac{1}{5}$  of 5 is represented.



To find a fifth of the quantity, divide by five ( $5 \div 5 = 1$ )

One stripy hat out of five in total represents one fifth.

In this example,  $\frac{2}{3}$  of 12 is represented by orange splats.



To find two thirds of the quantity, first divide the quantity into thirds ( $12 \div 3 = 4$ ).

To find two thirds, multiply a third by two ( $4 \times 2 = 8$ )

8 orange splats out of 12 splats in total represent two thirds of twelve.

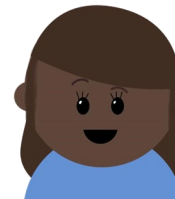
## Let's do this!



Time 2 minutes. Can you beat the clock to represent the fraction?

one half of 8	one sixth of 12	two fifths of 15
three quarters of 16	three ninths of 9	five sixths of 18
one seventh of 14	two tenths of 10	four eighths of 24
ten elevenths of 22	a fourth of 20	a twelfth of 36

## Challenge



Can you simplify any of the fractions of amounts?  
E.g. three sixths of 18 is equal to one half of 18.