

# MathFLIX CHALLENGE

## Multiplication Table

Here's your chance to make a table that will tell you all the basic multiples. Take special care to look for patterns in the table - patterns will help you save time! We've already highlighted one pattern - the square numbers. What is the importance of the numbers in the bold boxes?

Check to see if these statements are always true:

- The multiples of 12 are equal to the sum of the multiples of 2 and 10.
- The sum of the digits of the multiples of 9 always equal 9.

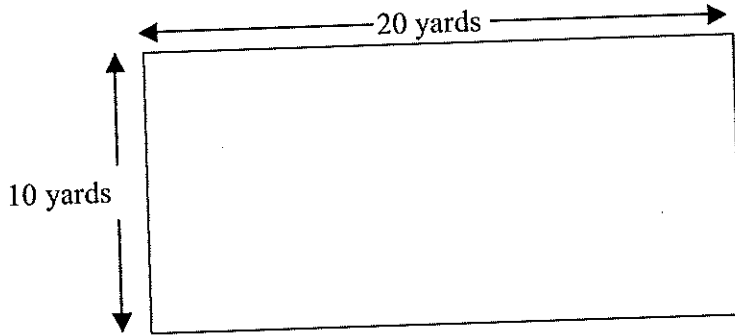
	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0												
1	0	1											
2													
3		3						21					
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12													

Standard Form	Factor Form	Exponent Form
1	(1)(1)	$(1)^2$
4	(2)(2)	$(2)^2$
9	(3)(3)	$(3)^2$
16	(4)(4)	$(4)^2$
25	(5)(5)	$(5)^2$
36	(6)(6)	$(6)^2$
49	(7)(7)	$(7)^2$
64	(8)(8)	$(8)^2$
81	(9)(9)	$(9)^2$
100	(10)(10)	$(10)^2$
121	(11)(11)	$(11)^2$
144	(12)(12)	$(12)^2$
169	(13)(13)	$(13)^2$
196	(14)(14)	$(14)^2$

## Fair Play

This problem gives you the chance to:  
• find areas and perimeters of rectangles

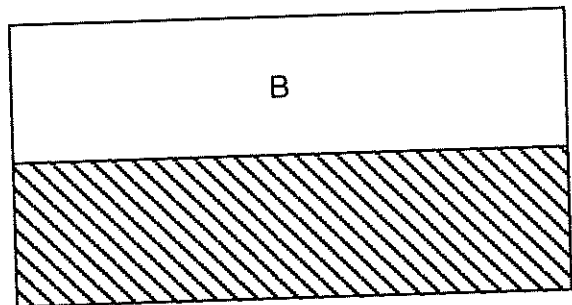
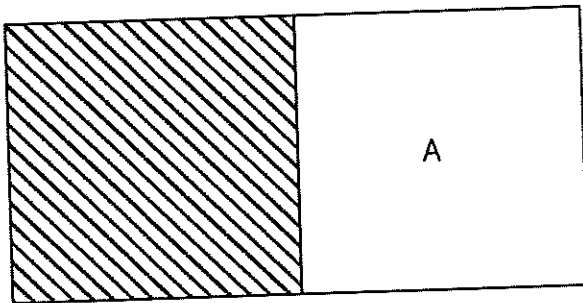
The Grade 4 students have a play area.  
These are its measurements.



1. What is the area of the play area? \_\_\_\_\_ square yards  
Show how you figured this out

2. The students would like a fence to be put around the area to stop balls going too far.  
What will the total length of the fence be?  
Show how you figured this out. \_\_\_\_\_ yards

3. The girls say that the boys take up too much space with their ball games.  
They want the area to be split into two equal parts.  
Here are two possible ways of dividing the area.



What are the perimeters of these areas?

A = \_\_\_\_\_ yards

B = \_\_\_\_\_ yards

4. Draw a straight line that divides the play area into two equal parts in a **different** way.

