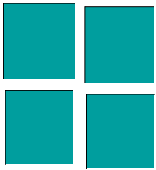



Building A Square Patio Patterns

Name _____

Date _____



As you build a model for a patio using square tiles, you notice some patterns that help you predict. Write expressions to find each. Work with your team to build each model in the table. Look for a rule that includes operating on the length of a side of the patio.

Sketch the patio	Length of one side	# of tiles added to last patio	Perimeter	Area	Radical expression
	1"	1	4	1^2	$\sqrt{1^2} = 1$
	2"	3	8	2^2	$\sqrt{2^2} = 2$
	3"				
	4"				
	5"				
	X"				

1. What would the area be if $x = 8$? 5½ ?
2. What would the perimeter if $x = 50$? 10.2?
3. What would the number added on be when $x = 32$? 3.5?
4. What would x be if the area were 400? 0.25?