Picture
Puzzles

HOW MANY SQUARES?

Picture
Puzzles

Picture Puzzles

Creator ... Doug. Williams
Publisher ... Mathematics Centre
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This Picture Puzzle is based on
... Task 108, *How Many Squares?*
Teaching Notes
... mathematicscentre.com/picturepuzzles/teachingnotes

Picture Puzzles

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To Do

1. Look for an organised way to count squares.
2. Look for a pattern in your answers.
3. Use the pattern to predict.

You Need

- Square tiles or cube blocks
- Square graph paper

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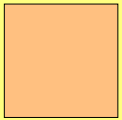

1 square

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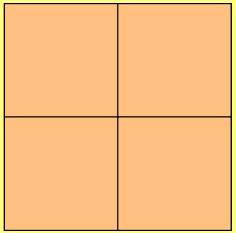

How many squares?

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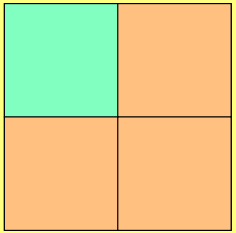

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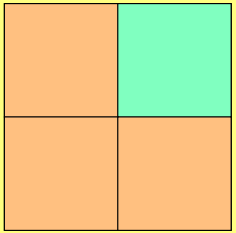

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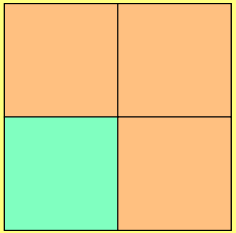

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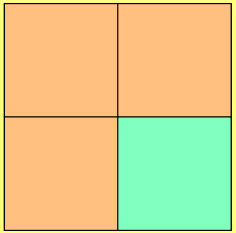

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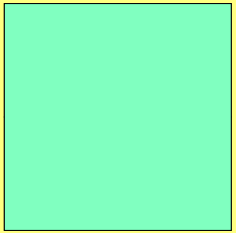

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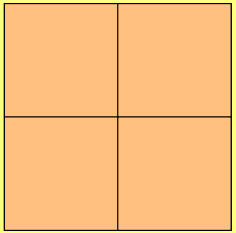

5 squares

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Predict for a 3 x 3 square.

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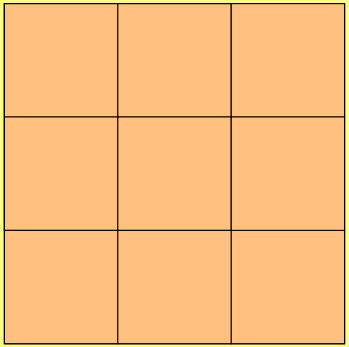

How many squares?

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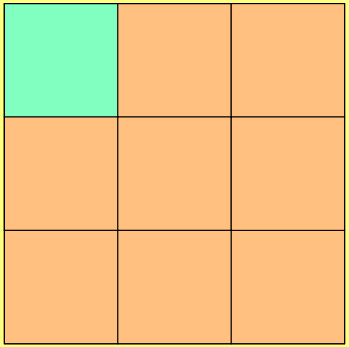

Size 1

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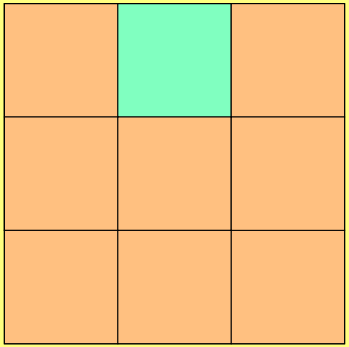

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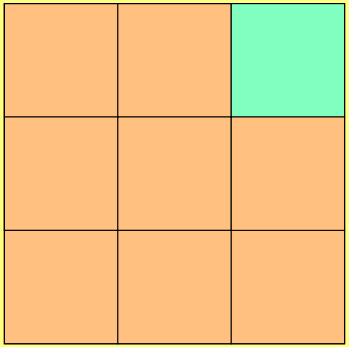

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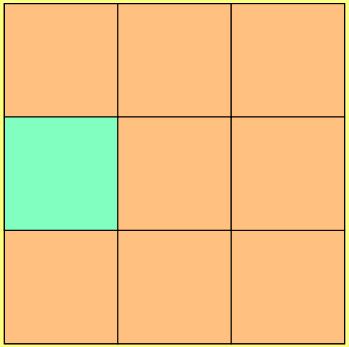

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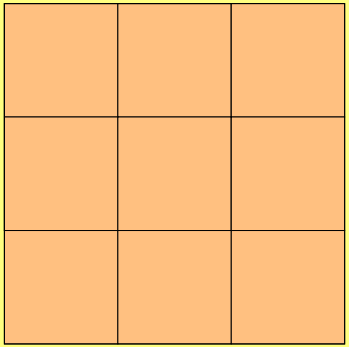

How many Size 1?

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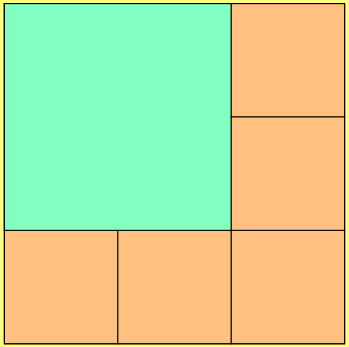

Size 2

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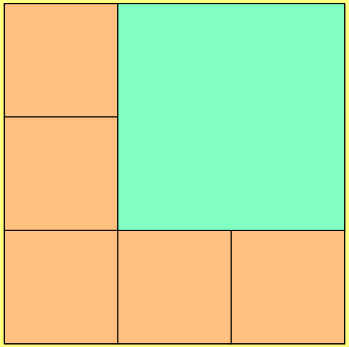

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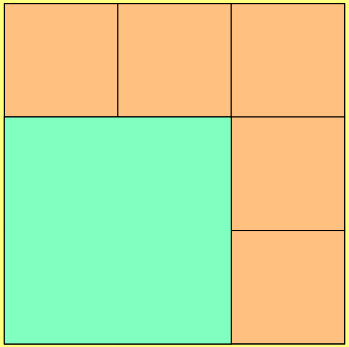

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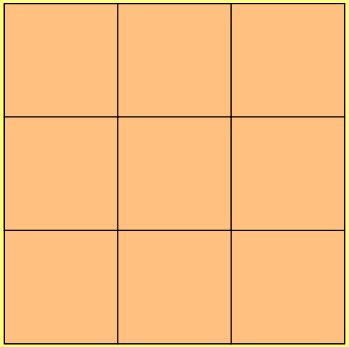

How many Size 2?

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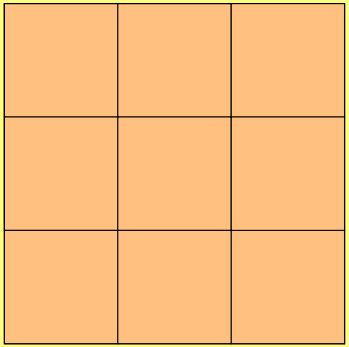

How many Size 3?

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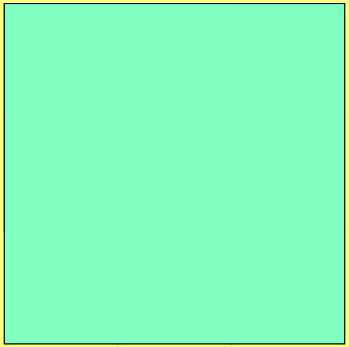

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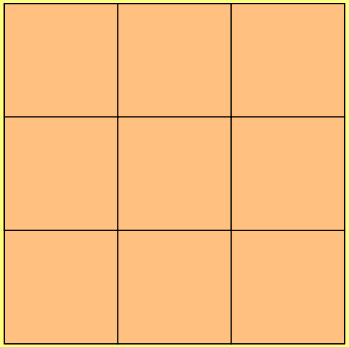

How many squares?

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Predict for a 4 x 4 square.

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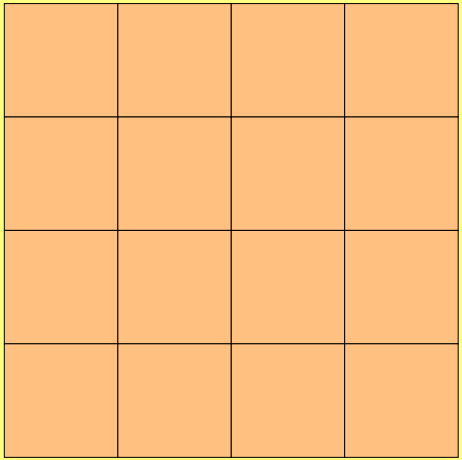

How many squares?

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Predict for a 5 x 5 square.

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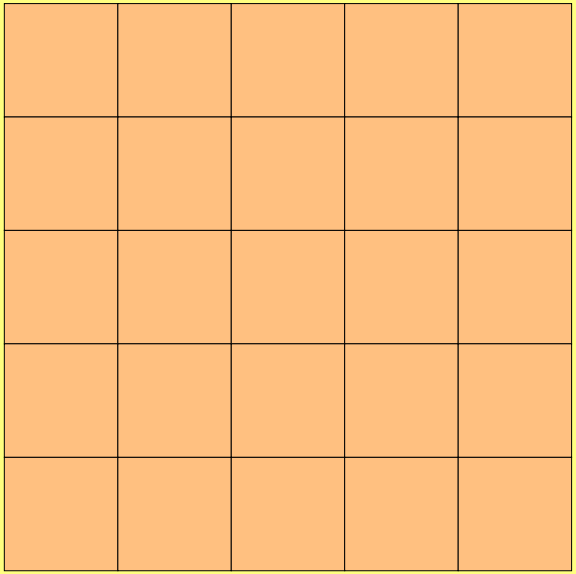

How many squares?

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Predict for an 8 x 8 square.

Picture Puzzles

Picture Puzzles

Can you check your prediction another way?

Picture Puzzles

Picture
Puzzles

more

Picture
Puzzles

Picture Puzzles

To Do

1. Find a way to predict the total number of squares formed in any size largest square.

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Predict for a 10 x 10 square.

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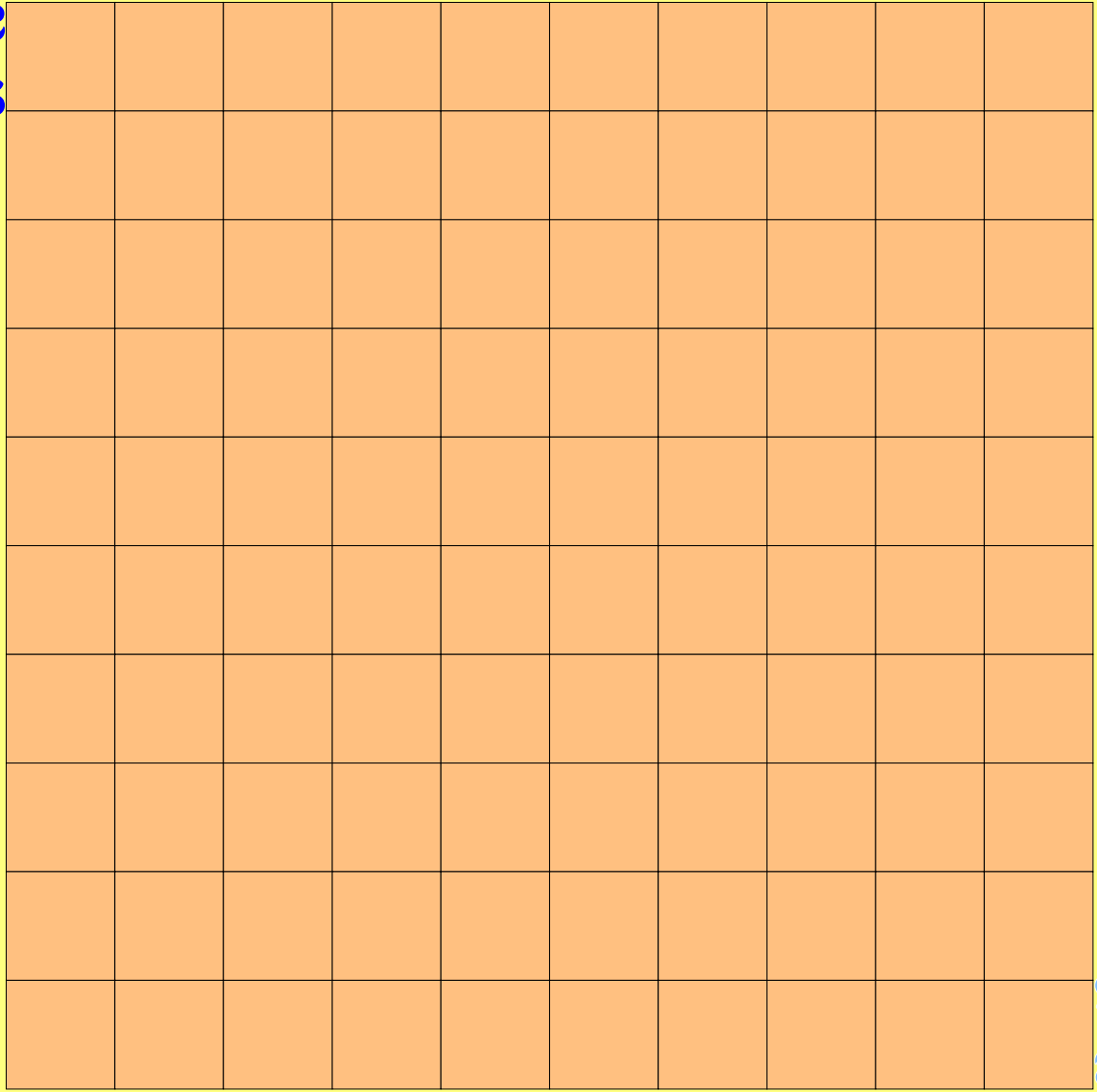

Picture Puzzles

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If I tell you any size largest square (S x S)

Can you tell me the total number

of squares formed (F)?

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THE END...

...OR IS IT?

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