Name: _____ B: _____ Date: _____

LEGO Proportions

Building Schema: Proportions show the relationship between two equivalent ratios. With a proportional relationship one item or group may end up larger than the other one or group but when both ratios are simplified they are equal.

Directions: For this activity you are going to focus on determining or creating proportions. You will build or evaluate built LEGO structures to first determine the ratios of the LEGOs and then apply those ratios to determine the proportional relationship. You will use the tables and areas provided as directed by the sections of this sheet.

Section 1:

Look at the bricks you have been given, determine the number of dots on the top of each brick. Use those dots to create the following ratios. Write the number of dots on each brick in the spaces provided to show the ratio relationship. You may also draw the bricks if you want.

Brick 1 Dots	Brick 2 Dots	Ratio	Brick 1 Dots	Brick 2 Dots	Ratio
		1:2			1:3

For this part you will create the ratios given using the number of bricks of a certain size compared to a different brick of a different size.

# of Brick 1	# of Brick 2	Ratio	# of Brick 1	# of Brick 2	Ratio
		1:2			1:3

# of Brick 1	# of Brick 2	Ratio	# of Brick 1	# of Brick 2	Ratio
		2:4			2:6

What proportional relationships do you see between the bricks you have used so far? Write them in the boxes below.

Ratio 1	Ratio 2	Proportional Relationship (Proportional Constant)

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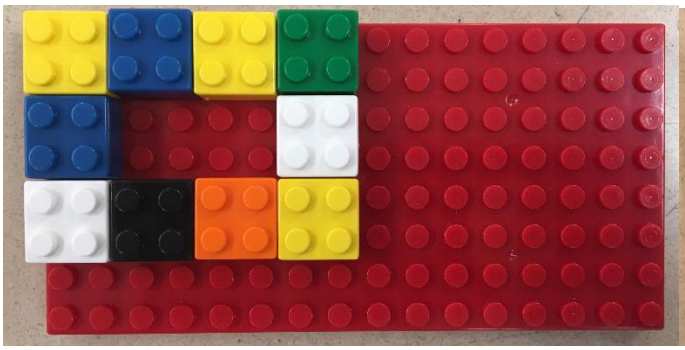
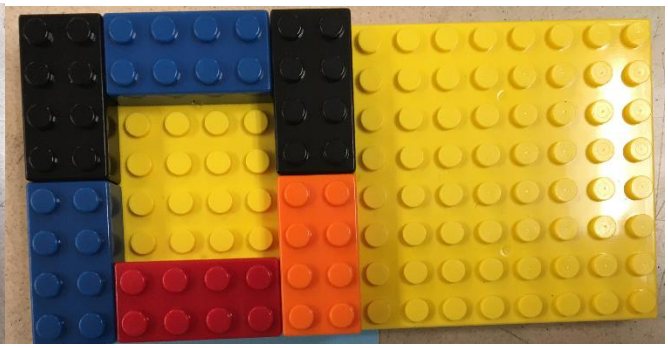
Section 2:

Build these 2 LEGO structures.

Structure A



Structure B



Look closely at the open space in the middle of the structures. Determine the ratio and write it in the table below.

Ratio of A : B	Ratio of B : A

Create one structure of your own that when combined with B to make ratio B:C, has a proportional relationship to Structures A and B. They must have an equivalent ratio but the ratio must be simplified before it can be equal to the ratio of Structure A to Structure B. Draw your Structure C in the large box below and then write your ratio underneath.

Ratio of B to C

What is the proportional relationship between Structures A and B and Structures B and C? Complete this chart.

Ratio A to B	Ratio B to C	Proportional Relationship (Proportional Constant)

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