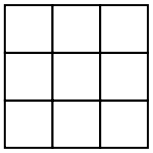
Square Numbers Closure Activity Name _____

Square numbers are the set of numbers {0, 1, 4, 9, 16, 25, …}. If a number is a square number, it can be modeled by a square. For example, 9 is a square number because 9 blocks can be made into a square.



Task 1A

The number 1 is a square number. Is 1 + 1 a square number? How do you know?

Task 1B

The numbers 4 and 9 are square numbers. Is 4 + 9 a square number? How do you know?

Task 1C

The numbers 16 and 25 are square numbers. Is 16 + 25 a square number? How do you know?

Task 1D

Create 3 more addition statements with square numbers and determine if the sums are square numbers.

_____ + _____ = _____ Is the sum square?

_____ + _____ = _____ Is the sum square?

_____ + _____ = _____ Is the sum square?

Task 1E

Can the sum of two square numbers be a square number? If so, give an example.

Task 1F

Are the square numbers closed under addition? Explain.

Square Numbers Closure Activity Name _____

Task 2A

The number 1 is a square number. Is 1 x 1 a square number? How do you know?

Task 2B

The numbers 4 and 9 are square numbers. Is 4 x 9 a square number? How do you know?

Task 2C

The numbers 16 and 25 are square numbers. Is 16 x 25 a square number? How do you know?

Task 2D

Create 3 more multiplication statements with square numbers and determine if the sums are square numbers.

_____ x _____ = _____ Is the product square?

_____ x _____ = _____ Is the product square?

_____ x _____ = _____ Is the product square?

Task 2E

Are the square numbers closed under multiplication? Explain.

Task 3A

List 2 things you learned about mathematics by doing this activity.

Task 3B

List any questions you have.