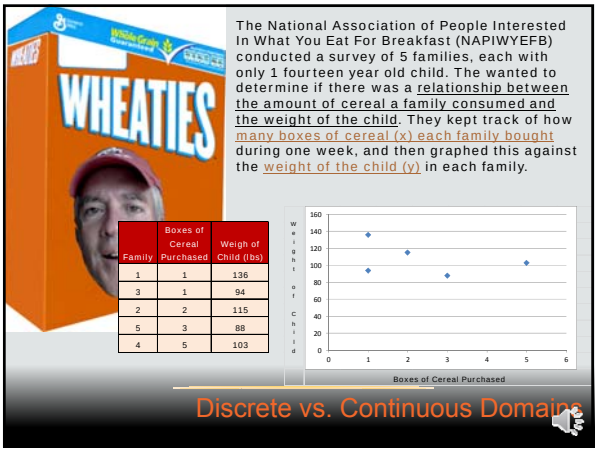
MasterMath

ALGEBRA

Discrete vs. Continuous Domains



The National Association of People Interested In What You Eat For Breakfast (NAPIWYEFB) conducted a survey of 5 families, each with only 1 fourteen year old child. The wanted to determine if there was a relationship between the amount of cereal a family consumed and the weight of the child. They kept track of how many boxes of cereal (x) each family bought during one week, and then graphed this against the weight of the child (y) in each family.

Family	Boxes of Cereal Purchased	Weigh of Child (lbs)
1	1	136
3	1	94
2	2	115
5	3	88
4	5	103

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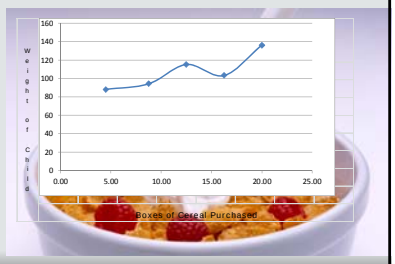
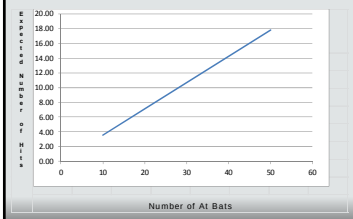
Family	Bowls of Cereal Eaten	Weigh of Child (lbs)
5	4.50	88
3	8.75	94
2	12.50	115
4	16.25	103
1	20.00	136



Discrete vs. Continuous Domains

You try it!

The Bobcat baseball team has team batting average of .356. The number of hits (y) they would be expected to get could be expressed as a function of the number of times they batted (x), and could be written as y = .356x. Is this a discrete or continuous domain? Is this graph an appropriate way to represent the relationship?



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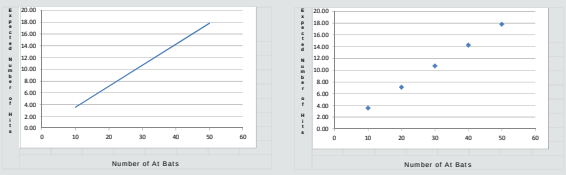

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The equation m = .62k can be used to convert any number of kilometers (k) into the equivalent number of miles (m). Is the domain of this function continuous or discrete?

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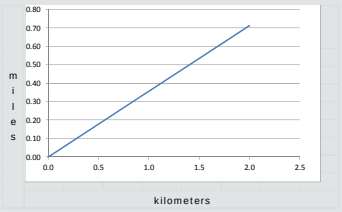

Discrete vs. Continuous Domains

You try it!

Joe sells shirts. His shirts cost $25 each, so if he sells 5 shirts, he makes $125. Write an expression to show the relationship between number of shirts sold and the Joe's revenue. Is the domain of this function discrete or continuous?

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r = 25s

"s" is the input value of the function. The possible s values is the domain of the function. Joe can't sell partial shirts, so the domain is discrete.

Discrete vs. Continuous Domains

You try it!

Now, try it on your own. Go to www.MasterMath.info download *Discrete vs. Continuous Domains* from the Worksheets Page, and test your skill. Then see how much you understand by taking the Subject Quiz.

Discrete vs. Continuous Domains