| I can . . . | Notebook Pages Artifacts | Sample Question |
| :---: | :---: | :---: |
| write an equation in function notation. |  | What is the function notation for the equation $2 x+4 y=16$ ? |
| evaluate a function, given the domain. |  | Given the function $f(x)=-x^{2}+5 x-7$, evaluate $f(4)$. <br> The domain of the function $g(x)=x^{2}-5 x+4$ is $\{0,3,7\}$. What is the range of function ? |
| evaluate a function in a realworld situation. |  | Connie's average monthly cost for basic cable service can be modeled by the function $A(x)=\frac{20 x+50}{x}$ , where $x$ represents the number of months of service. From the onset of service, when should Connie expect her monthly cable bill to average about $\$ 40$ ? <br> A. in the 2nd month <br> B. in the 3rd month <br> C. in the 4 th month <br> D. in the 5th month |

The average annual cost to run a dishwasher is approximately $\$ 33$. The function $f(x)=\frac{450+33 x}{x}$ , where $x$ is the age of the dishwasher in years, can be used to find the exact annual cost of running a dishwasher. What is the annual cost, to the nearest dollar, of running a 13 -year-old dishwasher?

Glen exercises on a treadmill. The table below shows the amount of time he exercises and the number of calories he burns.

Treadmill Exercise

| Time (minutes) | 5 | 15 | 25 | 35 | 45 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Calories Burned | 20 | 60 | 100 | 140 | 180 |

Glen exercises for 60 minutes. How many calories does he burn?

I can. . .
identify the
domain of a
function given an equation.

## Notebook Pages

 ArkifactsWhat is the domain of $f(x)=\frac{x-6}{x-4}$ ?


What is the domain of the function of this graph?
identify the domain of a
function given an graph, in words.

A. the set of real numbers that are not integers
B. the set of irrational numbers
C. the set of integers
D. the set $\{-1,1\}$

I can...
Notebook Pages Artifacts

A section of a parabola is graphed below.
identify the domain of a function given an graph, in algebraic notation.


Which inequality describes the domain of this function?

Is this a function?

use a mapping diagram to tell if a relation is a function.

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Is this a function?

## Birthday Student



The coach of a basketball team gathered data on each player's height, in inches, and shoe size. He organized the data using ordered pairs in the form (height, shoe size). Is this relation a function? Why or why not?

The cost of a long distance phone call is 30 cents for the first minute and 5 cents for each additional minute. What is the cost of a 4-minute long distance phone call?

According to a city's Waste Management Authority, the amount of space available for waste disposal at the local landfill is decreasing at a constant rate. The graph models the amount of space remaining after 1998.

Describe the domain and range of this graph in words. —>


I can. . .
Notebook Pages Arkifacts

## Sample Question

The tax on a $\$ 12$ item is $\$ 0.60$. The tax on a $\$ 4$ item is $\$ 0.20$. Graph this tax rate.


## Tips for Taking a Mach Tesk

- First look over the enfire test. You'll get a sense of its length. Try to identify those problems you definitely know how to do right away, and those you expect to have to think about.
- Do the problems in the order that suits you! Start with the problems that you know for sure you can do. This builds confidence and means you don't miss any sure points just because you run out of time. Then try the problems you think you can figure out; then finally try the ones you are least sure about.
- Work by the clock. On a 50 minute, 100 point test, you have about 5 minutes for a 10 point question. Starting with the easy questions will probably put you ahead of the clock. Do not spend 20 minutes on a problem which will yield few or no points when there are other problems still to try.
- Never waste time erasing! Just draw a line through the work you want ignored and move on. Not only does erasing waste precious time, but you may discover later that you erased something useful (and/or maybe worth partial credit if you cannot complete the problem).
- In a multiple-step problem outline the steps before actually working the problem.
- Don't give up on a several-part problem just because you can't do the first part. Attempt the other part.
- Make sure you read the questions carefully, and do all parts of each problem.
- Verify your answers - does each answer make sense given the context of the problem?
- If you finish early, check every problem (that means rework everything from scratch).

