

Flik's Anthill Homes, Inc.

A Bug's Life Writing Project

The following group project is to be worked on by no more than four students. You may use any materials you think may be useful in solving the problems but you may not ask anyone for help other than the people you have chosen to work with. This means you may not ask a tutor or any person other than those in your immediate group for help.

You are to type a response to the problem presented backing up your conclusions with mathematical reasoning, formulas, and solutions. Your grade will depend on how well you communicate your response as well as the accuracy of the conclusions. This project will be scored using the rubric on the last page of this document.

Please sign and date here to indicate that you have read and agree to abide by the above mentioned stipulations.

Student Name #1

Date

Student Name #2

Date

Student Name #3

Date

Student Name #4

Date



“We build ‘em...you stomp ‘em!” ¹

Trey Cox and Scott Adamson ©2001

Flik's Anthill Homes, Inc.

Flik
1 Anthill Mound
Sandpile, AZ 11122

Chandler-Gilbert Community College
Math Masterminds
7360 East Tahoe Avenue
Mesa, AZ 85212

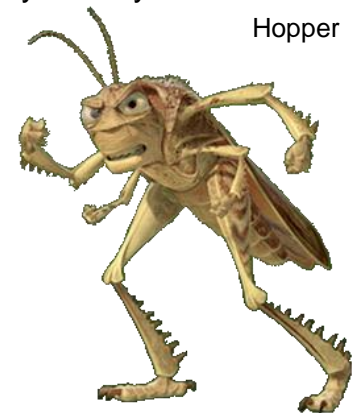
Dear Math Masterminds,

Hi! I hope you remember me! Yes, I am Flik the Ant from the movie, "A Bug's Life"! As you may remember, I was the hero who saved my colony from certain destruction at the hands of Hopper and his brutal gang of Grasshoppers. Hopper had terrorized us Ants by making us work as hard as slaves and forcing us to agree to give the Grasshoppers half of our food in exchange for them leaving us alone.



Flik

I am writing to tell you that I am the bearer of some good news and some bad news. The good news is that it has been five years now since my chubby German friend, Heimlich the Caterpillar, and I managed to lead the Bugs in a victory to fight off the Grasshoppers. We have had a nice, peaceful and festive time without those ferocious winged insects bothering us all of the time! The bad news is that Hopper has recruited some new and very dangerous allies – the Scorpions – and is now trying to bully us back into gathering food for him again.



Hopper

I was minding my own business last week as I was out on a food-gathering trip. You see, I was passing by the Cox family's yard and it occurred to me...why don't we find a new place to live and just, all-at-once, get up and move in the middle of the night so Hopper can't find us! Everyone knows that ants are hard workers and I am sure that we could get our whole ant colony moved overnight! As you can probably tell, I am very excited about this idea but I need your expert math advice before I take my idea to the Queen Ant. I don't want to

propose my suggestion if it won't work and then look foolish in front of Princess Atta. (She is sort of cute don't you think?) Let me explain what I would like you to do for me.

Our ant colony has gotten quite large and needs a big enough space in which to live. I have heard from your teacher that you have recently been studying the math topic of area. What I need to know from you is whether or not the Cox's back yard is big enough for our needs. Our ant professors from ASU (Ant

Princess
Atta



Queen
Ant



"We build 'em...you stomp 'em!" ²

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State University) have told me that they believe that an area of 2000 square feet will be sufficient for our village to live in. I have included a map of the Cox's back yard and the measurements of their yard in ant paces. I "walked off" the measurements myself and even had Heimlich double-check the figures. I am sure that with all the legs he has we must be very accurate!!!

Please do each of the following:

- ❖ Determine the area of the yard in square ant paces.
- ❖ Write out the number of square ant paces of the yard in words.
- ❖ Convert the area of the yard into square feet.
(800 ant paces = 1 foot)
- ❖ Determine if the yard is big enough for our needs.
- ❖ Write a letter back to me and tell me what you think.



Heimlich

I need to have your solution and written response by _____ because I don't want our situation to get so bad that my fellow ants become discouraged.

Your Bug Buddy,

Flik



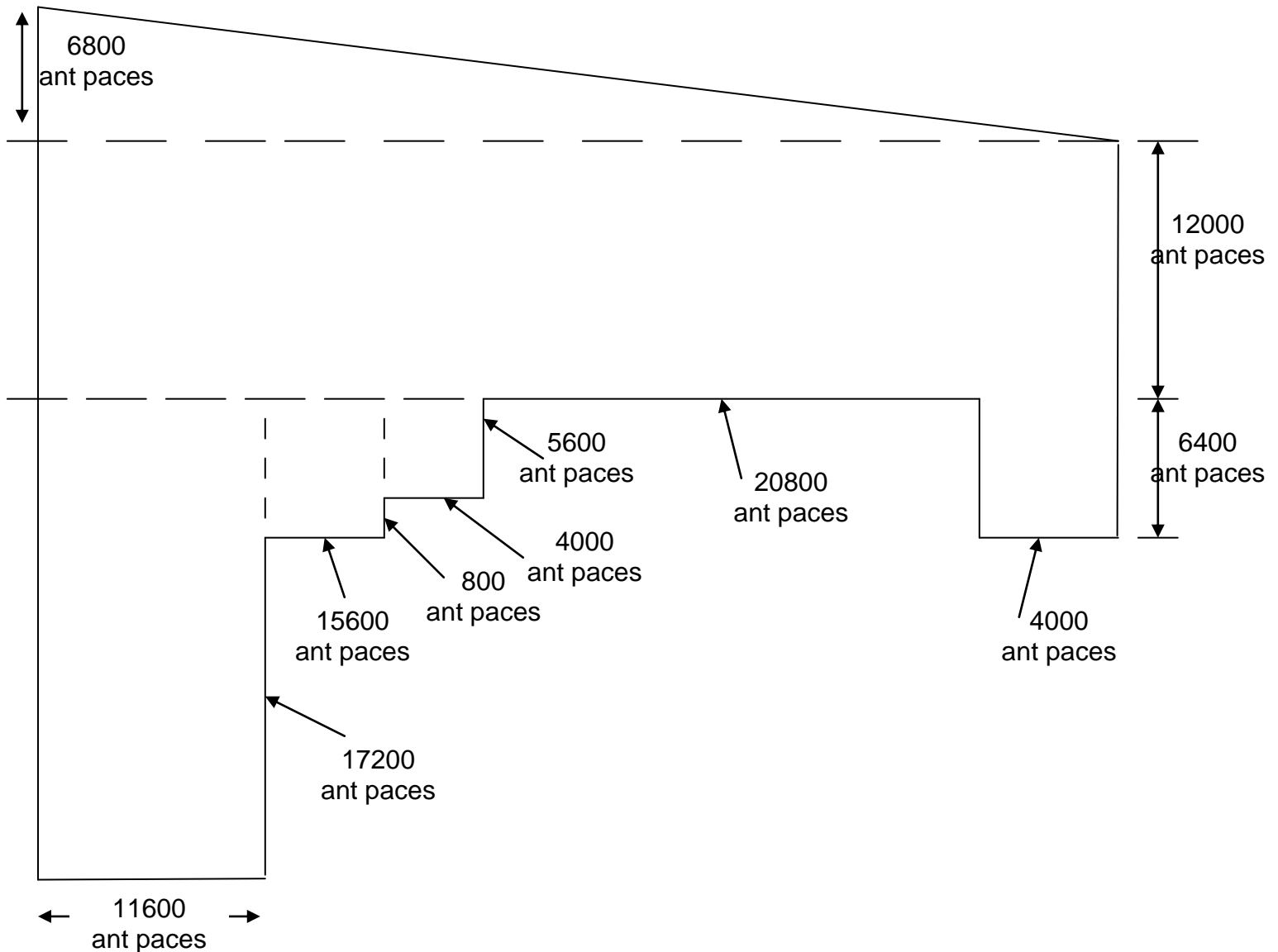
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The Cox Family Backyard

Note: 800 ant paces = 1 foot

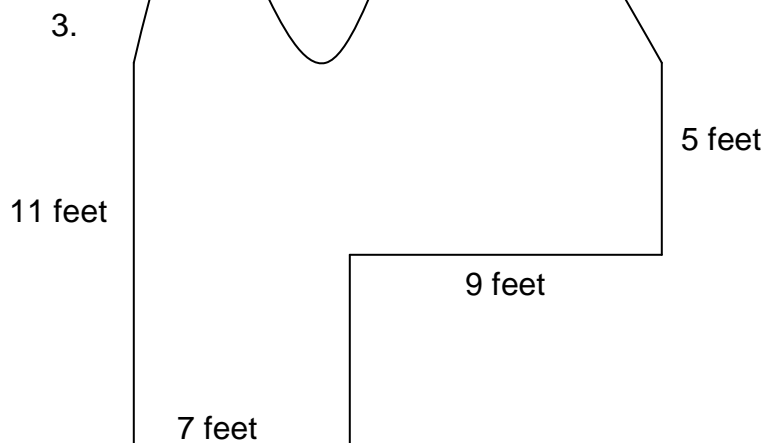
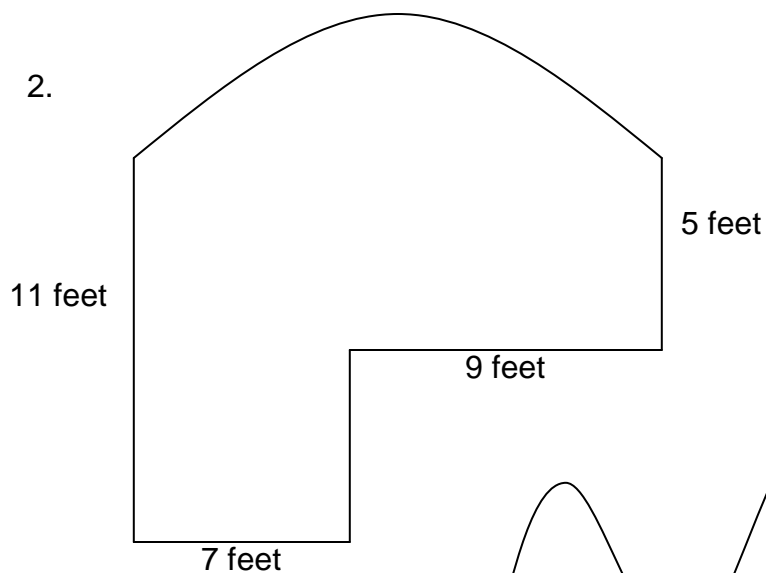
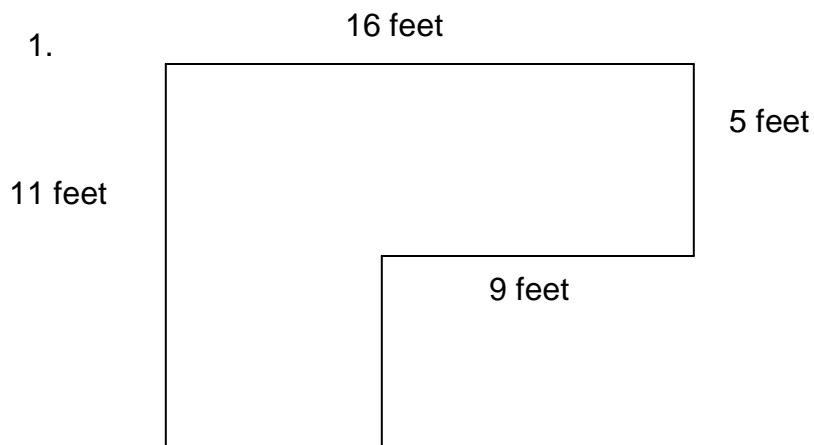


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Estimate the areas of each of the following yards:



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