

Example: nested stars

Code fragment

Ideas/questions/algorithm

Draw a black square

- Bigger than the biggest star
- Center at (0,0)
- Make side length 2.1

Draw a sequence of stars

- Stars get smaller
- Stars alternate in color
- 1st star smaller than the sqr
 - o radius $r=1$ to start
- When to stop?
 - o when r small

Example: is it prime?

- Write a program fragment to determine whether a given integer n is prime. Assume $n > 1$.
- Reminder: $\text{rem}(x,y)$ returns the remainder of x divided by y .

Ideas/questions/algorithm

Code fragment

Example: are they prime?

Given positive integers a and b where $a < b$, sketch a program that lists all the prime numbers in the range $[a, b]$.

Example: Times table

Ideas/questions/algorithm

Code fragment

```
disp('Times table')  
lo= input('What is the lower bound? ');  
hi= input('What is the upper bound? ');
```

Example: Find the biggest rectangle

Draw 5 yellow rectangles that a user specifies using mouse clicks. Then draw the biggest one in red.

Ideas/questions/algorithm

Code fragment

```
% Background  
drawRect(0,0,1,1,'k')  
title('Click twice for a rectangle')  
n= 5; % number of rectangles
```