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**19/SCI01/037**

**Question 1**

Using a simple if statement write a pseudocode to describe the Euclidean algorithm

**Answer**

The Euclidean algorithm is used to find the greatest common divisor of two positive integers

Using x and y as positive integers

Find the GCD (22,64) using pseudocode

**Begin**

Input Integer: 22 and 64

Output of the GCD, g of x and y

**if**

x & y, exchange as ("x/y")

Begin

Print Num

The remainder is declared as  $r = \%d$

**Else if**

Begin

Print Num

$r > 0$  then r is to replace the value of "y" and then the value of "x" is represented as "b" then perform the first if statement;

**Else if**

Begin

Print Num

$r = 0$  the operation stops and retrieves the value of "r" as the highest common factor

End

```
when green flag clicked
  ask "What's the largest number" and wait
  set x to answer
  ask "What's the smaller number" and wait
  set y to answer
  set r to x mod y
  repeat until r = 0
    set x to y
    set y to r
    set r to x mod y
  say join "the highest common factor" y for 4 seconds
```



x 20  
y 5  
r 0



Sprite Abby x -97 y 37  
Show   Size 100 Direction 90

Abby

Stage  
Backdrops 3

