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Programming in the Arts with Processing

**In Class Exercise #6****Day:****Tue 2.4.14****Due:****In Class****Goal: Your Initial 3D Experience****Course Web Site:**<http://www.andrew.cmu.edu/course/60-257/>**Reading:**

Posted on the calendar web page available from the link shown above.

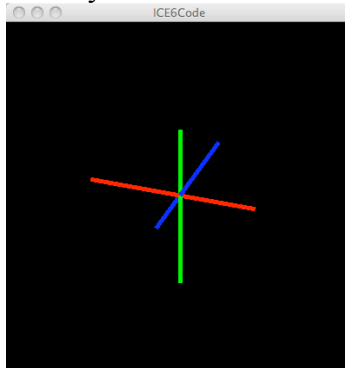
**Assignment:**

Use the code on the next page as your starting code.

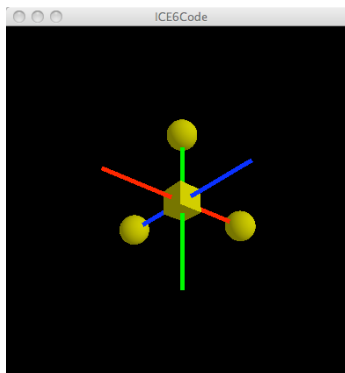
The definition of the function `placeShapes ()` is incomplete – finish defining it to display the following:

1. \_\_\_\_\_ Draw a 30 pixel box at the (0, 0, 0) point where the three lines intersect.
2. \_\_\_\_\_ Draw a 20 pixel sphere at the positive end of the **RED** X axis line.
3. \_\_\_\_\_ Draw a 20 pixel sphere at the negative end of the **GREEN** Y axis line.
4. \_\_\_\_\_ Draw a 20 pixel sphere at the negative end of the **BLUE** Z axis line.

This is how the window looks before you add code:



This is how the window should look when you are done:



## Starting Code:

```
// ICE 6 class code
// The usual comment goes here...
void setup( )
{
    size( 400, 400, P3D );
    background( 0 );
}

void draw( )
{
    prepareWindow( );
    placeShapes( );
}

void placeShapes( )
{
}

void prepareWindow( )
{
    background( 0 );
    translate( width/2, height/2, 0 );

    // rotate +30 degrees around the x Axis
    rotateX( radians( 30 ) );

    // rotate +20 degrees around the y Axis
    rotateY( radians( 20 ) );

    // turn on the light
    lights( );

    stroke( 255, 0, 0 );
    strokeWeight( 5 );
    line( -100, 0, 0, 100, 0, 0 ); // RED x axis line
    stroke( 0, 255, 0 );
    line( 0, -100, 0, 0, 100, 0 ); // GREEN y axis line
    stroke( 0, 0, 255 );
    line( 0, 0, -100, 0, 0, 100 ); // BLUE z axis line
}
```

