

Basic 3D Geometry Movement

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3D Movement by Changing Position

```
function animate()  
{  
    requestAnimationFrame(animate);  
    mesh1.position.x += 0.01;  
    renderer.render(scene, camera);  
}
```

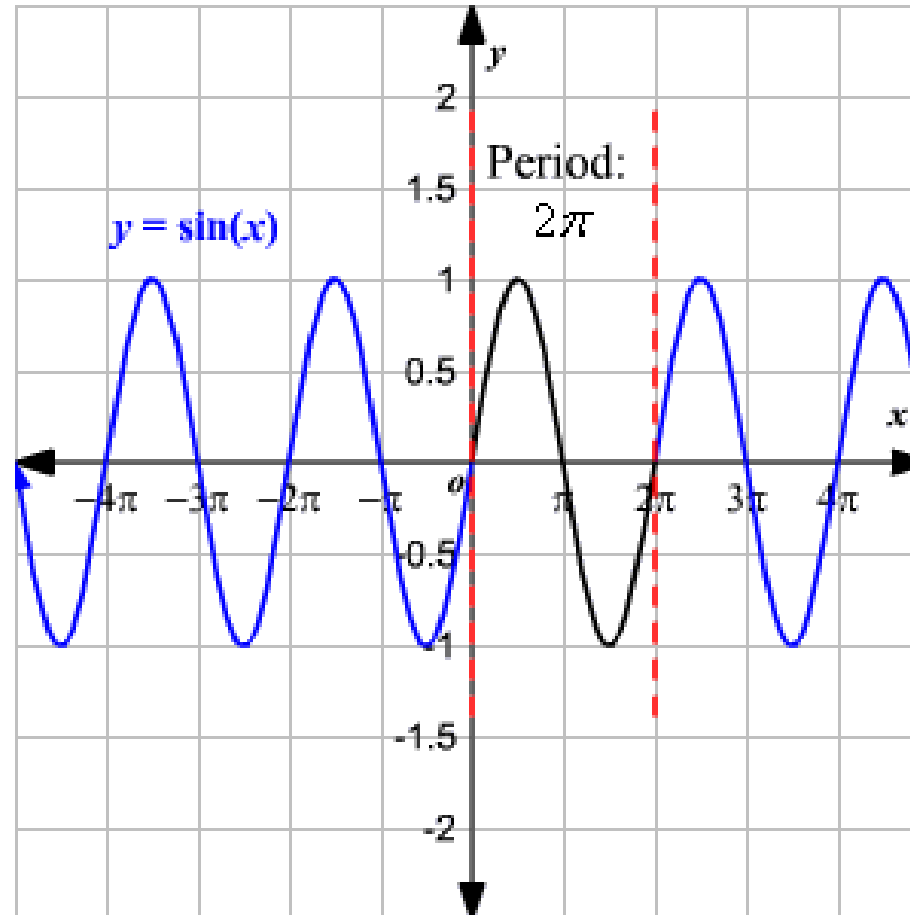
- `mesh1.position.x += 0.01;`
 - Essentially, `mesh1.position.x = mesh1.position.x + 0.01;`

Frame Number

- New a global variable to count the current number of frame
- Useful for animation

```
var iFrame = 0;  
function animate()  
{  
    requestAnimationFrame(animate);  
    iFrame ++;  
    renderer.render(scene, camera);  
}
```

Sin/Cos Function for Periodic Movements



Sin/Cos Function for Periodic Movements

```
var iFrame = 0;  
function animate()  
{  
    requestAnimationFrame(animate);  
    meshCircle.position.x = Math.sin(iFrame/100 + 3.14) * 10;  
    iFrame ++;  
    renderer.render(scene, camera);  
}
```



The range of
the periodic
movement



The initial position of
the periodic movement



The speed of the
periodic movement

The End

Any Questions?