

**CMPSCI 119 JES Reference Sheet**  
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<b>Color Constants:</b>	<b>Same As:</b>
black	makeColor(0,0,0)
red	makeColor(255,0,0)
green	makeColor(0,255,0)
blue	makeColor(0,0,255)
cyan	makeColor(0,255,255)
magenta	makeColor(255,0,255)
yellow	makeColor(255,255,0)
white	makeColor(255,255,255)

**FUNCTION**

**EXAMPLE**

**Colors**

```
makeColor(red,green,blue)
getRed()
getGreen()
getBlue()
```

```
MyColor = makeColor(128,0,255)
R = MyColor.getRed()
G = MyColor.getGreen()
B = MyColor.getBlue()
```

**Files**

```
pickAFile()
pickAFolder()
```

```
Filename = pickAFile()
Path = pickAFolder()
```

**Input Output**

```
requestNumber(message)
requestInteger(message)
requestIntegerInRange(message,min,max)
requestString(message)
showWarning(message)
showInformation(message)
showError(message)
printNow(message)
```

```
N = requestNumber("Enter a Value")
N = requestInteger("Enter a Value")
N = requestIntegerInRange("Enter a Value", 0, 10)
S = requestString("Enter a Command")
showWarning("Value is out of range")
showInformation("Ready to Go!")
showError("Illegal Command")
printNow("The Answer is True")
```

**Movies**

```
playMovie(movie)
makeMovie()
addFrameToMovie(frame,movie)
makeMovieFromInitialFile(filename)
writeQuickTime(movie,path,framespersec)
writeAVI(movie,path,framespersec)
```

```
playMovie(MyMovie)
MyMovie = makeMovie()
addFrameToMovie(Canvas,MyMovie)
MyMovie = makeMovieFromInitialFile("Frame0000.jpg")
writeQuickTime(MyMovie, "MyMovie.mov",16)
writeAVI(MyMovie, "MyMovie.avi",16)
```

**Pixels**

```
getColor(pixel)
setColor(pixel,color)
getRed(pixel)
getGreen(pixel)
getBlue(pixel)
setRed(pixel,value)
setGreen(pixel,value)
setBlue(pixel,value)
```

```
MyColor = getColor(px)
setColor(px,red) or setColor(px,makeColor(255,0,0))
R = getRed(px)
G = getGreen(px)
B = getBlue(px)
setRed(px,255)
setGreen(px,0)
setBlue(px,128)
```

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**Pictures**

addLine( <i>picture</i> ,startX,startY,endX,endY,color)	addLine(Canvas,0,0,20,17,red)
addOval( <i>picture</i> ,startX,startY,width,height,color)	addOval(Canvas,20,20,50,30,green)
addOvalFilled( <i>picture</i> ,startX,startY,width,height,color)	addOvalFilled(Canvas,20,20,50,30,green)
addRect( <i>picture</i> ,startX,startY,width,height,color)	addRect(Canvas,20,20,50,30,green)
addRectFilled( <i>picture</i> ,startX,startY,width,height,color)	addRectFilled(Canvas,20,20,50,30,green)
addText( <i>picture</i> ,xpos,ypos,text,color)	addText(Canvas,50,60, "Hello",red)
addTextWithStyle( <i>picture</i> ,xpos,ypos,text,style,color)	addTextWithStyle(Canvas,50,60, "Hello",MyStyle,red)
getHeight( <i>picture</i> )	H = getHeight(Canvas)
getWidth( <i>picture</i> )	W = getWidth(Canvas)
getPixel( <i>picture</i> ,xpos,ypos)	px = getPixel(Canvas,110,97)
getPixelAt( <i>picture</i> ,xpos,ypos)	<i>same as getPixel</i>
getPixels( <i>picture</i> )	for px in getPixels(Canvas):
makePicture( <i>path</i> )	Canvas = makePicture(Filename)
makeEmptyPicture(width,height,color)	Canvas = makeEmptyPicture(320,240,blue)
makeStyle(fontName,emphasis,size)	MyStyle = makeStyle(sansSerif,bold+italic,16)
show( <i>picture</i> )	show(Canvas)
repaint( <i>picture</i> )	repaint(Canvas)
writePictureTo( <i>picture</i> , <i>path</i> )	writePictureTo(Canvas, "Frame.jpg")
setAllPixelsToAColor( <i>picture</i> ,color)	setAllPixelsToAColor(Canvas,white)

**Sound**

blockingPlay( <i>sound</i> )	blockingPlay(MySound)
getDuration( <i>sound</i> )	TotalSeconds = getDuration(MySound)
getLength( <i>sound</i> )	TotalSamples = getLength(MySound)
getNumSamples( <i>sound</i> )	<i>same as getLength</i>
getSamples( <i>sound</i> )	for MySample in getSamples(MySound):
getSampleValue( <i>sample</i> )	Value = getSampleValue(MySample)
getSampleValueAt( <i>sound</i> ,index)	Value = getSampleValueAt(MySample,0)
getSamplingRate( <i>sound</i> )	Rate = getSamplingRate(MySound) <i>(returns float)</i>
makeEmptySound(samples,rate)	MySound = makeEmptySound(1000, 44100)
makeEmptySoundBySeconds(duration,rate)	MySound = makeEmptySoundBySeconds(1, 44100)
makeSound( <i>path</i> )	MySound = makeSound(Filename)
play( <i>sound</i> )	play(MySound)
setSampleValue( <i>sample</i> ,value)	setSampleValue(MySample, 32767)
setSampleValueAt( <i>sound</i> ,index,value)	setSampleValueAt(MySound, 0, 32767)
writeSoundTo( <i>sound</i> , <i>path</i> )	writeSoundTo(MySound, "Noise.wav")