

<p><b>Methods available in ConsoleProgram</b></p> <pre> int readInt(String prompt) double readDouble(String prompt) String readLine(String prompt) void println(<i>what-to-print</i>) void print(<i>what-to-print</i>) void add(<i>component, where</i>) </pre>	<p><b>GObject Common Methods</b></p> <pre> double getX() double getY() double getWidth() double getHeight() void move(double dx, double dy) void setLocation(double x, double y) void setColor(Color c) </pre>
<p><b>Methods available in GraphicsProgram</b></p> <pre> void add(GObject obj) void remove(GObject obj)s void removeAll() void addMouseListeners() int getWidth() int getHeight() GObject getElementAt(double x, double y) void pause(double milliseconds) void add(<i>component, where</i>) </pre>	<p><b>GObject Constructors</b></p> <pre> new GRect(double x, double y,           double width, double height) new G Oval(double x, double y,           double width, double height) new GLine(double x0, double y0,           double x1, double y1) new GLabel(String text) </pre>
<p><b>Event Handlers</b></p> <pre> void mousePressed(MouseEvent e) void mouseReleased(MouseEvent e) void mouseClicked(MouseEvent e) void mouseMoved(MouseEvent e) void mouseDragged(MouseEvent e) void mouseEntered(MouseEvent e) void mouseExited(MouseEvent e) </pre>	<p><b>Fillable Object Methods</b></p> <pre> void setFilled(boolean isFilled) void setFillColor(Color fillColor) </pre>
<p><b>RandomGenerator Methods</b></p> <pre> RandomGenerator getInstance() int nextInt(int low, int hi) double nextDouble(double low, double hi) boolean nextBoolean(double probability) Color nextColor() </pre>	<p><b>GLabel Methods</b></p> <pre> void setFont(String fontString) double getAscent() double getDescent() String getLabel(); void setLabel(String label) </pre>
<p><b>String Methods</b></p> <pre> char charAt(int index) int length() int indexOf(<i>text</i>) int indexOf(<i>text</i>, int startPoint) String substring(int start) String substring(int start, int end) String toLowerCase() String toUpperCase() boolean equals(<i>other-string</i>) </pre>	<p><b>MouseEvent Methods</b></p> <pre> int getX() int getY() </pre>

<p><b>Character methods</b></p> <pre> boolean Character.isLetter(char ch) boolean Character.isDigit(char ch) boolean Character.isWhitespace(char ch) boolean Character.isLowerCase(char ch) boolean Character.isUpperCase(char ch) boolean Character.isLowercase(char ch) boolean Character.isLetterOrDigit(char ch) char Character.toLowerCase(char ch) char Character.toUpperCase(char ch) </pre>	<p><b>Parsing Methods</b></p> <pre> int Integer.parseInt(String text) double Double.parseDouble(String text) </pre>
<p><b>File I/O</b></p> <pre> try {     BufferedReader br =         new BufferedReader(new FileReader(filename))      while (true) {         String line = br.readLine();         if (line == null) break;          /* ... process line ... */     }      br.close(); } catch (IOException e) {     /* ... handle error ... */ } </pre>	
<p><b>ArrayList&lt;T&gt; Methods</b></p> <pre> void add(T elem) T get(int index) int size() void setAt(int index, T newValue) void remove(int index) boolean contains(T elem) </pre>	<p><b>HashMap&lt;Key, Value&gt; Methods</b></p> <pre> Value put(Key key, Value value) Value get(Key key) boolean containsKey(Key key) </pre>
<p><b>GImage Methods</b></p> <pre> int[][] getPixelArray() int createRGBPixel(int r, int g, int b) int getRed(int color) int getGreen(int color) int getBlue(int color) </pre>	<p><b>StdAudio Methods</b></p> <pre> double[] read(String filename) void play(double[] soundClip) </pre>