CECS 220 Assignment #1

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For this assignment, problem #1 required us to move a circle drawn in the Einstein applet to the bottom, right-hand corner, #2.8 asked to create a time convertor to determine the number of seconds from a given number of hours, minutes, and seconds, #2.10 asked us to convert a user specified number of quarters, dimes, nickels, and pennies into a total dollar amount, and #2.12 asked us to create a calculator that will accept the length of a side of a square and will output its perimeter and area.

The Einstein applet required no user input and simply rendered shapes and test onto the screen using Swing. For the time conversion the requested input included an integer number of hours, minutes, and seconds with the output being a total number of seconds. Similarly the change convertor required an integer number of quarters, dimes, nickels, and pennies and outputted the total dollars and cents. Finally, the square calculator simply required an integer side length to calculate the perimeter and area.

(Screenshots attached below)

In conclusion, this assignment was quick and very straight-forward with most of the logic being within the conversions themselves (hours, minutes, seconds -> total seconds -- quarters, dimes, nickels, pennies -> dollars, etc.).

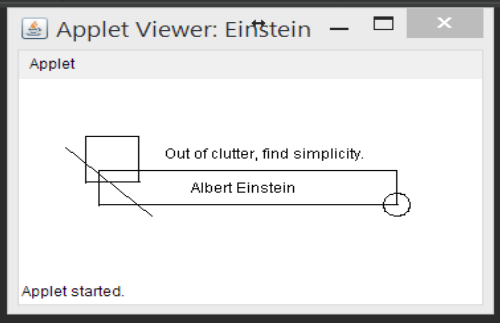
Einstein.java | TimeConversion.java | ChangeConversion.java | SquareCalculator.java

```
/.../

import ...

public class Einstein extends JApplet
{
    public void paint(Graphics page)
    {
        page.drawRect(50, 50, 40, 40); // square
        page.drawRect(60, 80, 225, 30); // rectangle
        page.drawOval(275, 100, 20, 20); // circle
        page.drawLine(35, 60, 100, 120); // line

        page.drawString("Out of clutter, find simplicity.", 110, 70);
        page.drawString("Albert Einstein", 130, 100);
    }
}
```



Time Conversion | Einstein | Time Conversion

```
"C:\Program ...
Enter number of hours (integers only): 15
Enter number of minutes (integers only): 3
Enter number of seconds (integers only): 888
Thanks! 15 hour(s), 3 minute(s), and 888 second(s) is a total of 55068 second(s).

Process finished with exit code 0
```

Time Conversion | Einstein | Change Conversion

```
"C:\Program ...
Enter number of quarters (integers only): 100
Enter number of dimes (integers only): 54
Enter number of nickles (integers only): 33
Enter number of pennies (integers only): 1003
Thanks! You have a total of $42.08!

Process finished with exit code 0
```

Time Conversion | Einstein | Square Calculator

```
"C:\Program ...
Please enter the length of your squares side (integers only): 22
Thanks! Your square has a perimeter of 88 and an area of 484!

Process finished with exit code 0
```