

ECE 474 - Quiz 4 - Spring 2015

Name and last 4 of ID: KEY

1. [15, 15, 20, 25, 25] Draw a correct gate realization for the following code snippets.

```

always_ff @ (posedge clk, negedge reset_n)
  if(!reset_n)
    out <= '0;
  else if (en)
    out <= ~out;
  
```

```

always_ff @ (posedge clk)
  if (!reset_n)
    out <= '0;
  else
    out <= in;
  
```

```

always_ff @ (posedge clk, negedge reset_n)
  if(!reset_n)
    out <= '0;
  else
    if (en)
      out <= in;
  
```

```

always_ff @ (posedge clk, negedge reset_n)
  if(!reset_n) begin out <= '0; out1 <= '0; end
  else      begin out <= in; out1 <= out; end
  
```

```

always_ff @ (posedge clk, negedge reset_n)
  if(!reset_n) begin out <= '0; out1 <= '1; end
  else      begin out <= ~out1; out1 <= out; end
  
```

2. [2] What was unclear to you in this last week's lecture or homework?