

Pre-lab questions:

1. Please program Newton's method for finding the root of  $x$ . You can use any starting point.

*Newton's method for evaluating  $\sqrt{x}$*

$$r_k = \frac{1}{2} \left( r_{k-1} + \frac{x}{r_{k-1}} \right)$$

2. Will the following program have runtime error? Try it yourself, explain, and revise.

```
int main()
{
    int c = 5, no = 10;
    do {
        no /= c;
    } while(c--);

    printf ("%d\n", no);
    return 0;
}
```

3. What is the output of the following code? Please explain it.

```
int main()
{
    int n;
    for (n = 10; n!=0; n--)
        printf("%d ", n--);
    return 0;
}
```