Delete these examples once you look over the commands and my comments in the .tex file.

Italic text

Bold text

$$c=\pi*r^2$$

$$(a \wedge b) \vee (\neg c \wedge d)$$

$$4 + 5 = 9$$

| p | q | $p \implies q$ |
|---|---|----------------|
| Т | Т | Т |
| Т | F | F |
| F | Т | Т |
| F | F | Т |

Table 1: The truth table for an implication.

Section 1.2

1.n

$$T(n) = 4T(n/4) + n$$

There will be k levels of recursion where $k = log_4(n)$. The amount of work done at each level k is summed. There is T(1) * n work done by the bottom level.

$$\sum_{i=1}^{k} 4^{i-1} * \frac{n}{4^{i-1}} + T(1) * n$$

$$\sum_{i=1}^{k} n + T(1) * n$$

$$k * n + T(1) * n$$

$$log_4(n)*n+c*n$$

 $O(n \log n)$

4.d

5.d

Section 1.3