Problem 1.

Here is the first homework problem solution.

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}.$$

Problem 2.

Here is the second homework problem solution. It has some parts:

(a) One aspect of this problem.

Some further discussion.

Still more...

(b) Another aspect

And it has a URL reference (Tufts).

Problem 3.

Here we include some computer code.

```python
def square(x):
return x*x

result1=list(map(square,[1,2,3]))
result2=list(map(square,[2,4,6]))
print(result1)
print(result2)
```

and we include also the *output* from this code's execution:

```
[1, 4, 9]
[2, 16, 36]
```