

Ph3 Set 1

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```
In[1]:= 2 + 2
```

```
Out[1]= 4
```

```
In[9]:= a = 22 / 7
```

```
b = Pi
```

```
N[ (a - b) / b]
```

```
Out[9]=  $\frac{22}{7}$ 
```

```
Out[10]=  $\pi$ 
```

```
Out[11]= 0.000402499
```

```
In[12]:= N[ (Sqrt[10] - Pi) / Pi, 4]
```

```
N[ (Sqrt[10] - Pi) / Pi, 40]
```

```
N[ (Sqrt[10] - Pi) / Pi, 400]
```

```
Out[12]= 0.006584
```

```
Out[13]= 0.006584242089740700724550602854928774032689
```

```
Out[14]= 0.00658424208974070072455060285492877403268923683456295253039252064389036988374975  
501531022420178616213066767694856699102049432476675080588718149725529207421319985  
439665967352965479902997504803667539321328053243604569216033911202561651630788015  
796297061824010587183864692918440235304981880256458504195522709405905397879508495  
476543102372868079607762112815971272303116531544621187620367502803216147965432245  
128
```

```
In[15]:= firstfive = {1, 2, 3, 4, 5}
```

```
firstfive[[5]]
```

```
firstfive[[2]] = Pi
```

```
firstfive
```

```
Out[15]= {1, 2, 3, 4, 5}
```

```
Out[16]= 5
```

```
Out[17]=  $\pi$ 
```

```
Out[18]= {1,  $\pi$ , 3, 4, 5}
```

```
In[19]:= squares = Table[{i, Sqrt[i]}, {i, 1, 10}]
```

```
Out[19]= {{1, 1}, {2,  $\sqrt{2}$ }, {3,  $\sqrt{3}$ }, {4, 2}, {5,  $\sqrt{5}$ },  
          {6,  $\sqrt{6}$ }, {7,  $\sqrt{7}$ }, {8,  $2\sqrt{2}$ }, {9, 3}, {10,  $\sqrt{10}$ }}
```

```
In[20]:= TableForm[N[squares, 3]]
```

```
Out[20]/TableForm=
```

1.00	1.00
2.00	1.41
3.00	1.73
4.00	2.00
5.00	2.24
6.00	2.45
7.00	2.65
8.00	2.83
9.00	3.00
10.0	3.16