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# PiAppx.py
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""" Estimates pi with a fraction.
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```
Inputs an integer numerator and determines  
the best denominator so that the ratio is as  
close to pi as possible. Showcases the floor  
function from the math module."""
```

```
import math
```

```
num = input('Enter a positive integer greater than three: ')
```

```
# There are two possible denominators and they
```

```
# are the two closest integers to num/pi
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```
d1 = math.floor(num/math.pi)
```

```
errD1 = abs(num/d1 - math.pi)
```

```
d2 = d1+1
```

```
errD2 = abs(num/d2 - math.pi)
```

```
if errD1 < errD2:
```

```
    print '\n| %1d/%1d - pi | = %8.3e' %(num,d1,errD1)
```

```
else:
```

```
    print '\n| %1d/%1d - pi | = %8.3e' %(num,d2,errD2)
```