

# CD/CN4001: Topic 3 Lab

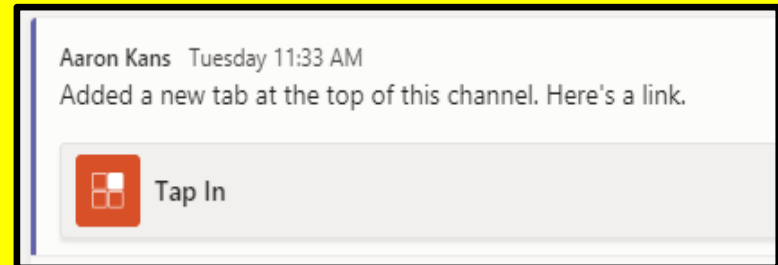
## ON CAMPUS

***Tap in*** with your ID card in a ***UEL lab***



## REMOTE

***Click on the Tap in tab*** in the ***General*** channel of the Teams site



# CD/CN4001: Topic 3 Lab



***Click on the Week 3 block of your Moodle Site***

# CD/CN4001: Topic 3 Lab



**ONCAMPUS LAB (ALL):** CHECK SCHEDULED SLOT ON TIMETABLE

**EMERGENCY ONLINE LAB (ONLY WITH COURSE LEADER PERMISSION):** VIA TEAMS SITE, TUE 4-6



 JDoodle (a web-based Java IDE)

***Open the lab 3 task sheet***

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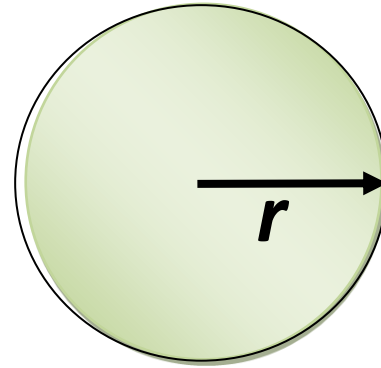
**Now, let's tackle  
today's **assessed**  
task (for **4 marks**)....**

## The Circle Application

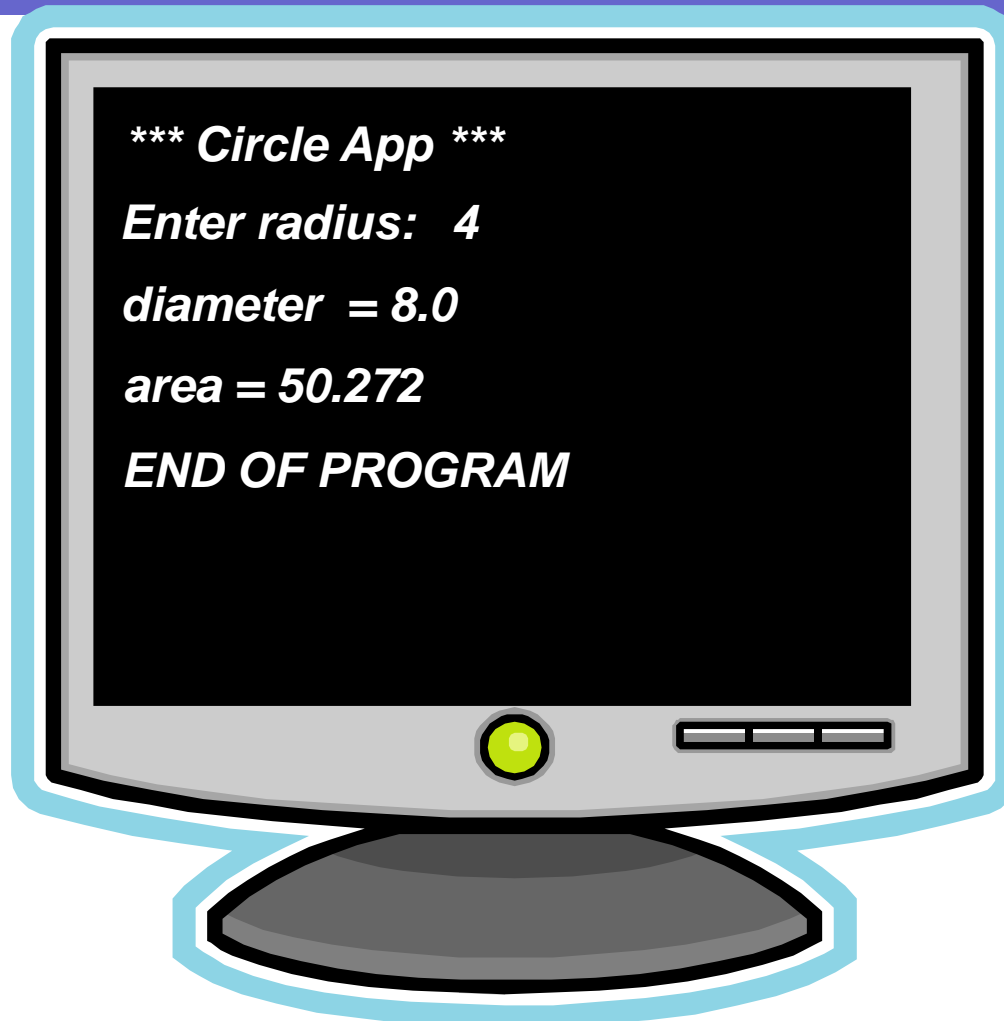
**diameter** =  $2r$

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

where  $\pi = 3.142$



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## JDoodle Introduction

To open the web-based Java IDE called **JDoodle** click [here](#).



***Find a link to JDoodle in your worksheet***

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*Highlight and delete the code **in the main method***

```
1 public class MyClass {  
2     public static void main(String args[]) {  
3         int x=10;  
4         int y=25;  
5         int z=x+y;  
6  
7         System.out.println("Sum of x+y = " + z);  
8     }  
9 }
```



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And rename your  
class **CircleApp**

```
1 public class MyClass {  
2     public static void main(String args[]) {  
3         int x=10;  
4         int y=25;  
5         int z=x+y;  
6  
7         System.out.println("Sum of x+y = " + z);  
8     }  
9 }
```

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```
1 public class CircleApp {  
2     public static void main(String args[]) {  
3  
4     }  
5  
6 }
```

*Finally – for improved readability – **shift your opening brackets ....***

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```
1 public class CircleApp {  
2     public static void main(String args[]) {  
3  
4     }  
5  
6 }
```

*....to the next  
line.*

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## REMOTE



```
1 public class CircleApp
2 {
3     public static void main(String args[])
4     {
5
6     }
7
8 }
```

*You can now **write your code** in the main method*

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```
1 public class CircleApp
2 {
3     public static void
4     {
5
6     }
7
8 }
```

*To allow for user input,  
slide the **Interactive**  
slider on*



Interactive

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```
1 public class CircleApp
2 {
3     public static void main(String args[])
4     {
5
6     }
7
8 }
```



Interactive

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## REMOTE



```
1 public class CircleApp
2 {
3     public static void main(String args[])
4     {
5
6     }
7 }
8 }
```

*To run your code  
hit the **Execute**  
button*

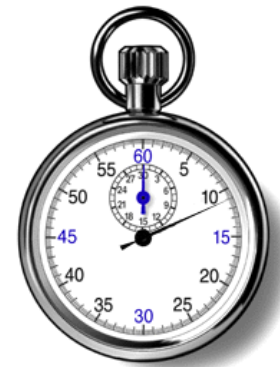
▶ Execute



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Declare **all the necessary variables** required for this program (remember the value of  $\pi$  (**PI**) is a **constant**) and a **Scanner** object (call it **sc**).

**YOU HAVE 8 MINUTES!!!**





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Write code to print a title such as (**\*\*\* CIRCLE APP \*\*\***) and the final **“END OF PROGRAM”** message on the screen. Between these lines add a comment **“// CODE TO BE COMPLETED”**

**YOU HAVE 5 MINUTES!!!**



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**TIME'S UP!!**

# CD/CN4001: Topic 3 Lab



# CD/CN4001: Topic 3 Lab

Replace the comment with code to **ask the user for the radius of the circle** and then **enter the radius into a variable.**

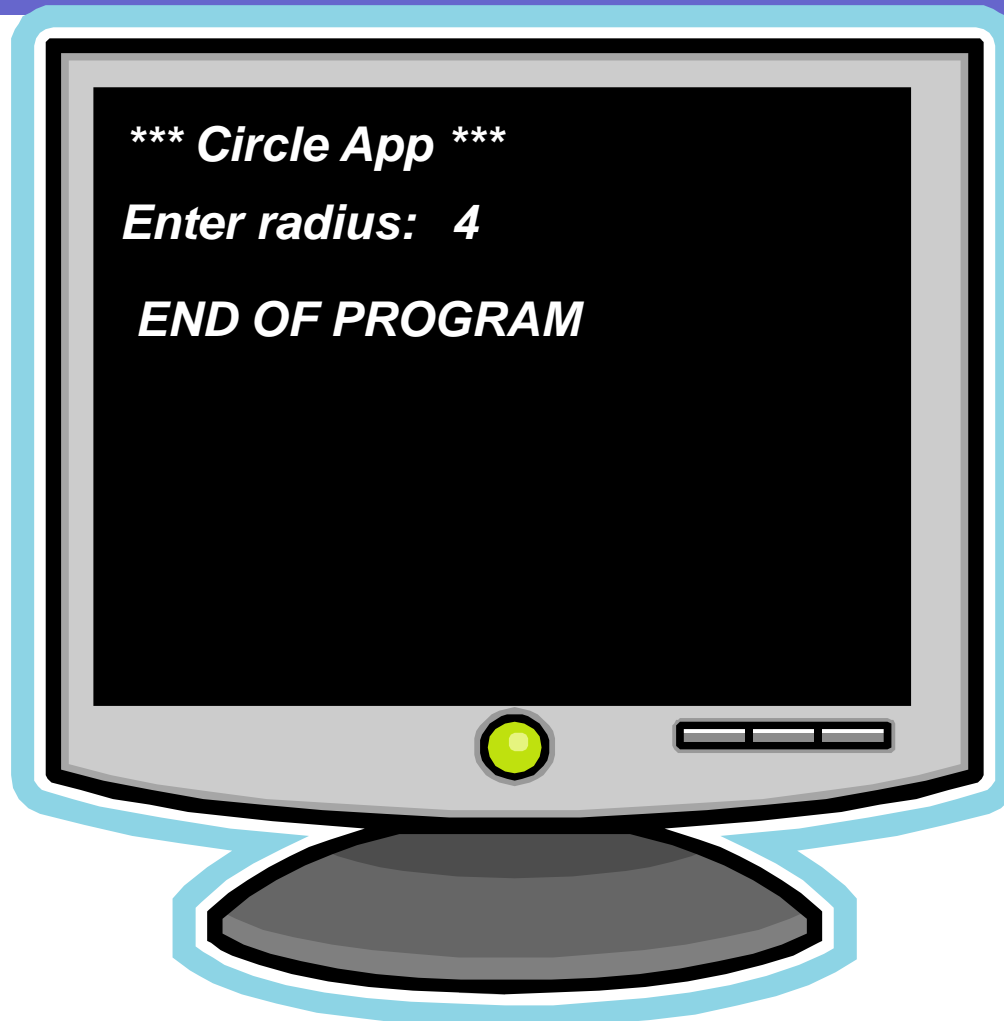
**YOU HAVE 5 MINUTES!!!**



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**TIME'S UP!!**

# CD/CN4001: Topic 3 Lab



# CD/CN4001: Topic 3 Lab

Write code to **calculate** and then **display** the **diameter of the circle**.

**YOU HAVE 5 MINUTES!!!**

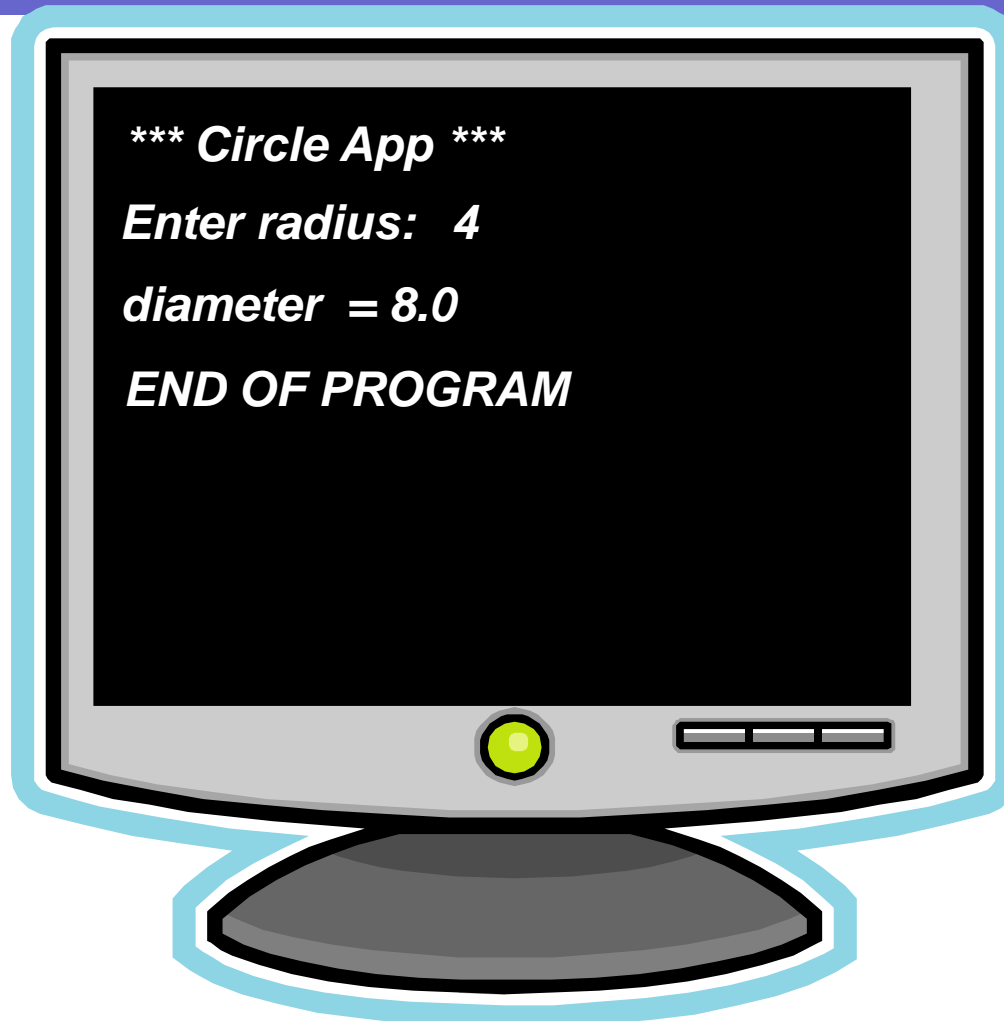


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**TIME'S UP!!**



# CD/CN4001: Topic 3 Lab



# CD/CN4001: Topic 3 Lab

Write code to **calculate** and then **display** the **area** of the circle.

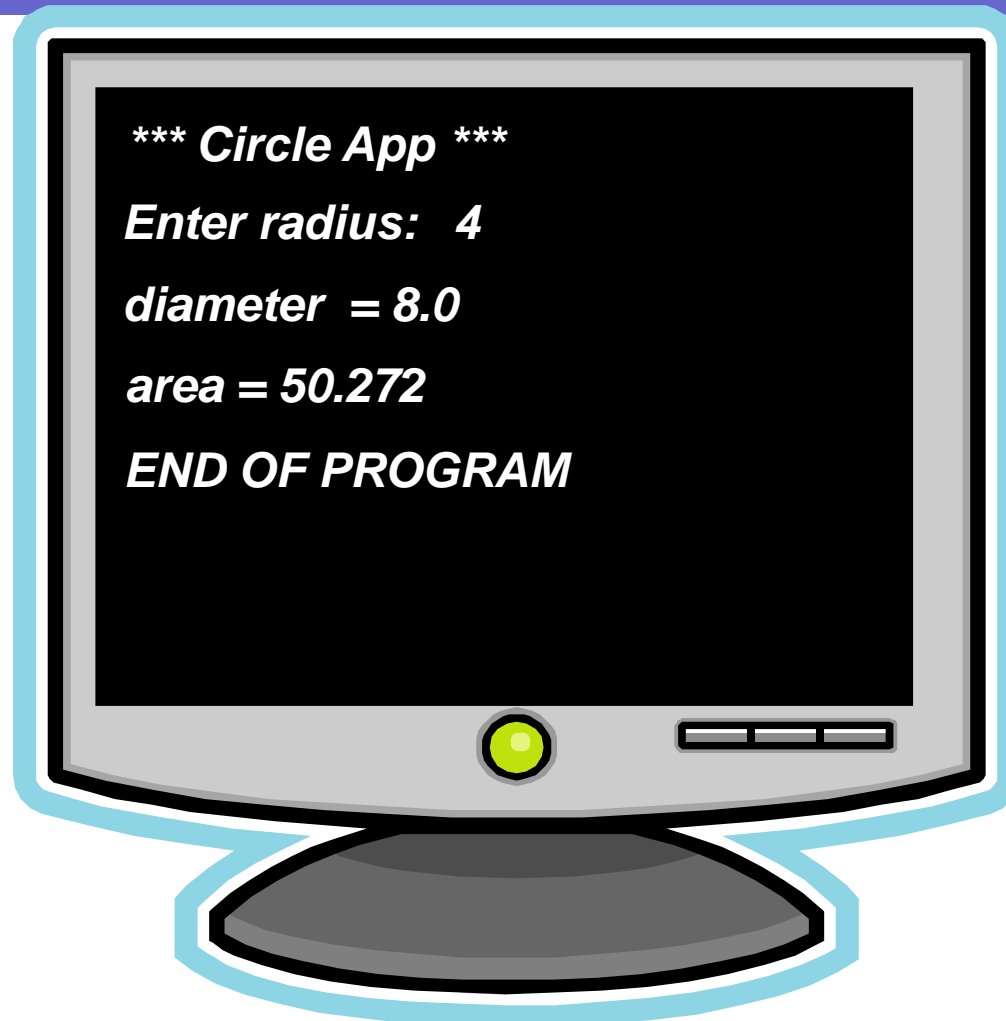
**YOU HAVE 5 MINUTES!!!**



# CD/CN4001: Topic 3 Lab

**TIME'S UP!!**

# CD/CN4001: Topic 3 Lab



# CD/CN4001: Topic 3 Lab

Add some **Javadoc** comments at the top of this program

**YOU HAVE 5 MINUTES!!!**



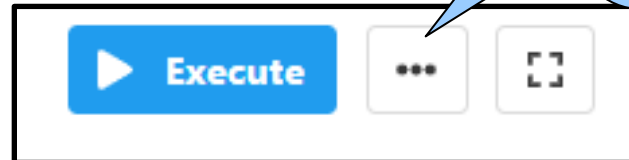
# CD/CN4001: Topic 3 Lab

**TIME'S UP!!**

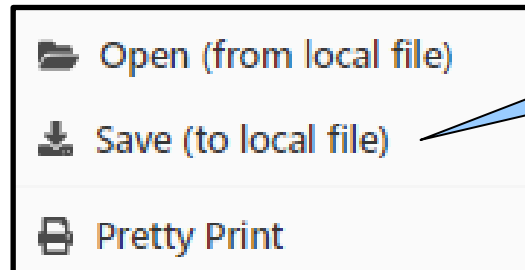
# CD/CN4001: Topic 3 Lab



Select the **three dots** to see an option to **download your file**



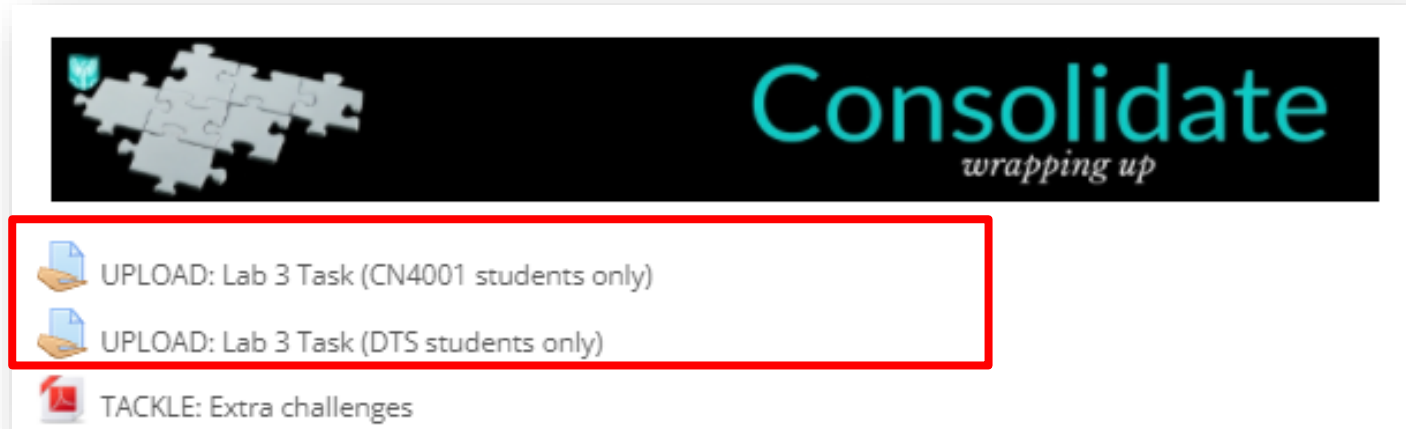
# CD/CN4001: Topic 3 Lab



**Select the *Save*  
(to local file)  
option**



# CD/CN4001: Topic 3 Lab



Upload your **CircleApp.java** file to **Moodle** so your tutor can check you have completed this task successfully – using the appropriate **submission link**.

# CD/CN4001: Topic 3 Lab



Consolidate  
*wrapping up*



UPLOAD: Lab 3 Task (CN4001 students only)



UPLOAD: Lab 3 Task (DTS students only)



TACKLE: Extra challenges

**Try and complete this today, but If you don't you will have roughly one week to complete this.**

# CD/CN4001: Topic 3 Lab



Consolidate  
*wrapping up*



UPLOAD: Lab 3 Task (CN4001 students only)



UPLOAD: Lab 3 Task (DTS students only)



TACKLE: Extra challenges

**If you want to challenge yourself once you have completed this lab task, tackle the **extra challenges!****