## Student Worksheet 1 <br> TI-15 Explorer ${ }^{\text {mw }}$ : Pieces of Pi

## Name:

## Insfructions:

1. The purpose of this task is to investigate the relationship between circle circumference and circle diameter. For each of the circles below, use a string and ruler to measure the circumference and then use a ruler to measure the diameter. Remember that the diameter is a line that goes from one side of the circle to the other and must pass through the centre of the circle.
2. Record your results in the table and use your TI-15 Explorer ${ }^{\text {TM }}$ to calculate the division for the last column $(C \div D)$. Record the results of the division to 2 decimal places.
3. Finally calculate the mean score of the 8 values in the $C \div D$ column and record it in the 'mean score' box. Congratulations! This is your very own calculation for the value of $\pi$.

Note: You might like to find your own circles to measure (e.g. paper plates, lids, jars - but remember that in each case you will not only need to measure the circumference of the circle, but also the diameter (through the centre).


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Note: In each of these circles, the point where the two diameter lines cross, is the centre of the circle.

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| Circle Number | Circumference C | Diameter D | C $\div$ D |
| :---: | :---: | :---: | :---: |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |

My very own approximation of $\pi$
(the mean of the scores in last column)


