## MathFLIX CHALLENGE

## All about $\boldsymbol{\pi}$

History of Pi Use the information given to complete the table.

| Culture/Person | Year | Difference from <br> $\mathbf{2 0 1 2} *$ | Estimated <br> Value of $\boldsymbol{\pi}$ | Difference from <br> $\boldsymbol{\pi}=\mathbf{3 . 1 4 1 5 9}$ |
| :---: | :---: | :---: | :---: | :---: |
| Babylonian | 2000 BCE | $2012-(-2000)=4012$ | $3+1 / 8=3.125$ |  |
| Egyptian | 2000 BCE |  | 3.16045 |  |
| China | 1200 BCE |  | 3 |  |
| Bible | 500 BCE |  | 3 |  |
| Archimedes | 250 BCE |  | 3.1418 |  |
| Hon Han Shu | 130 CE | 1882 years | Sqrt $(10) \cong 3.1622$ |  |
| Ptolemy | 150 CE |  | 3.14166 |  |

* BCE is an abbreviation for Before Current Era or Before Common Era and refers to years occuring before the Year 1. CE is an abbreviation for Current Era or Common Era and refers to years occuring after the Year 1.

Finding Pi Use the measurements given below to complete the table..then measure your own items and see how close to $\pi$ your measurements are!

| $\#$ | Item | Diameter | Circumference | Circumference <br> Diameter | Difference <br> from Pi |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | small can | 10 cm | 31.5 cm |  |  |
| 2 | large can | 15.5 cm | 48.5 cm |  |  |
| 3 | salt shaker | 3.4 cm | 12.2 cm |  |  |
| 4 | paper cup | 8.4 cm | 27.7 cm |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |
| 7 |  |  |  |  |  |

Finding Circumference Calculate the circumference of each circle in centimeters. What stays the same in each calculation? Remember, $\mathbf{C}=\boldsymbol{\pi} \mathbf{d}$


