Try This 1 – 6 Possible Solutions

TT 1. Use the circumference formula $C = \pi d$.

TT 2. Possible answers could include the following:

The technique of measuring the diameter is more accurate because the string would not lie exactly on the circle.

OR

The technique of wrapping the string around the circle and then measuring the length of string used is more effective. The reason for this is because, with the other method, it is difficult to know exactly where the centre of the circle is in order to draw a diameter.

TT 3. Two techniques were described. In the first technique, the diameter of the circle is measured and then the formula $C = \pi d$ is used. An advantage is that there is not a lot of handling of materials; e.g., a person only needs a ruler.

In the second technique, a length of string is wrapped around the circle. Then the length of string is measured. An advantage of this technique is that there is no need to determine the centre of the circle.

TT 4. A disadvantage of the first technique is that it is difficult to locate the centre of the circle.

A disadvantage of the second technique is that the string may be difficult to maneuver into a circle. (The student may also have answered that a disadvantage is that a person needs to have a ruler as well as a piece of string.)

TT 5. Since the diameter of a tree trunk cannot be measured directly without cutting the tree down, the second technique of using a string is more appropriate.

TT 6. A person can wrap a length of string around the trunk to measure the circumference. The value obtained in the circumference can be used in the formula $C = \pi d$. Rearrange for *d*.