ROYAL CANADIAN SEA CADETS

PHASE FOUR

INSTRUCTIONAL GUIDE

SECTION 2

EO C421.02 – MAKE A ROUND MAT

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-604/PG-001, *Phase Four Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Create an overhead slide of the figure located at Attachment A.

Photocopy the round mat patterns located at Attachment B and Attachment C for each cadet.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

An interactive lecture was chosen for TP 1 to introduce the use of a knot-weaving board for making a round mat.

A demonstration and performance was chosen for TP 2 as it allows the instructor to demonstrate making a round mat while providing an opportunity for the cadets to practice this skill under supervision.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall have made a round mat.

IMPORTANCE

Making a round mat will be beneficial to the cadets as new concepts used in more advanced knot work are introduced in a fun and challenging way.

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Teaching point 1 **Explain the set-up of a knot-weaving board.**

Time: 10 min Method: Interactive Lecture

KNOT WEAVING

Introduction

As cord mats become more complicated, it becomes difficult to keep track of where cords are to be woven. One method of weaving intricate mats is the use of a knot-weaving board. The board consists of wood, cork or cardboard that allows a mat pattern to be affixed by pins or nails. The cord is woven around the pins following a given pattern which indicates direction and where cords will cross under or over each other. The pins maintain the desired shape of the mat until it is complete.



The round mat chosen for this lesson is a flattened Turk's head knot that is used as the logo for the International Guild of Knot Tyers (as illustrated in Figure 1). This simple mat will introduce the basic concepts used to make larger, more intricate mats. Once complete, this mat can be used as a hot or cold trivet.



Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

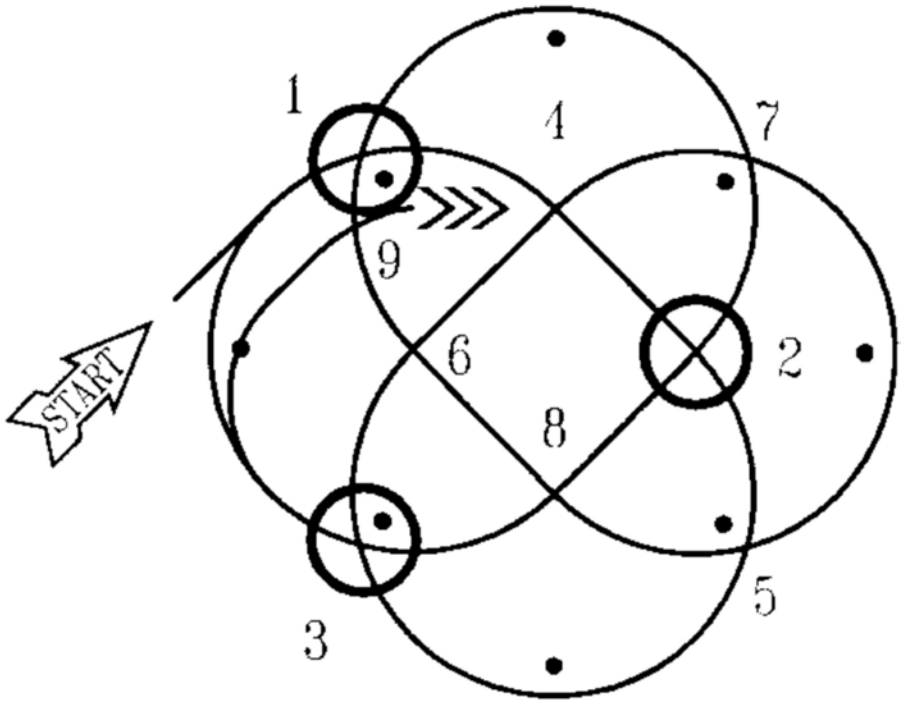
Figure 1 Completed Round Mat

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Mat Patterns

To make mat weaving easier, a series of arrows, dots, circles, lines and numbers are used on the mat patterns. They are as follows:

- The numbers are placed at alternate crossings on the diagram and are to be followed consecutively during the weaving process.
- A circle at a crossing indicates an underpass of a cord already there.
- A crossing with no circle indicates an overpass of a cord already there.
- An outlined arrow with the word "START" indicates the starting position and the initial direction for the lay of the cord.
- A feathered arrow indicates the end of the pattern.
- Small dots on the pattern indicate the turning points and the placement of pins.



Note. From Fancy Knotting: An Introduction (p. 11), by David Fukuhara, 2002, Vancouver, BC: David Fukuhara.

Figure 2 Typical Mat Pattern

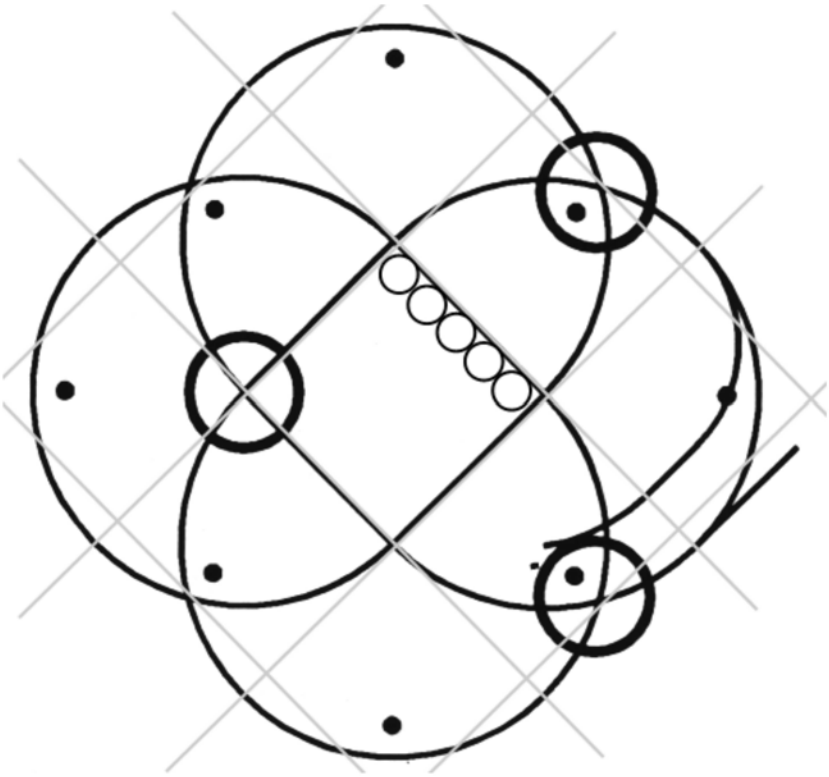
Scaling a Pattern

Each mat pattern is drawn on a square grid. This allows for visualization of the mat pattern and easy identification of which crossover points are overpasses and which are underpasses.



Place the slide located at Attachment A on an overhead projector.

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Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Figure 3 Pattern Grid

By scaling the size of the squares, the pattern can be used for different sizes of line. The sides of squares should be roughly five cord diameters in length. The following guide may be used:

Diameter of cord	Length of square's side*
4 mm (3/16 inch)	20 mm (3/4 inch)
6 mm (1/4 inch)	30 mm (1 1/4 inch)
9 mm (3/8 inch)	45 mm (1 7/8 inch)
12 mm (1/2 inch)	60 mm (2 1/2 inch)
***Based on a 3 lead pattern. To change the number of leads in the pattern, add or subtract a cord diameter from the side measurement accordingly.**	

Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Figure 4 Pattern Scaling Chart

The term "lead" refers to a cord that follows the mat pattern to completion. For example, a three-lead mat has the cord following the pattern to completion three times.

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Length of Cord

The length of cord required to weave the mat can be determined before weaving. With the pattern on the knot-weaving board, put a pin at each turning point. Pin one end of the uncut cord at the starting point. Lay the cord on the pattern following the numbers from start to finish ignoring the underpasses. Mark this length with a piece of tape. After removing the cord, cut a length of cord equal to three times this measurement and add 30 cm (12 inches). The extra length will allow for hiding the ends in the middle of the mat.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What is the purpose of a knot-weaving board?

Q2. How is an underpass marked on a pattern?

Q3. What is the general rule for scaling a pattern?

ANTICIPATED ANSWERS:

A1. To visually track where cords are to be woven.

A2. A circle around the crossover point.

A3. The sides of the grid should be five cord diameters in length.

Teaching point 2 **Demonstrate and have the cadets make a round mat.**

Time: 70 min Method: Demonstration and Performance



Distribute the round mat pattern located at Attachment B to each cadet.

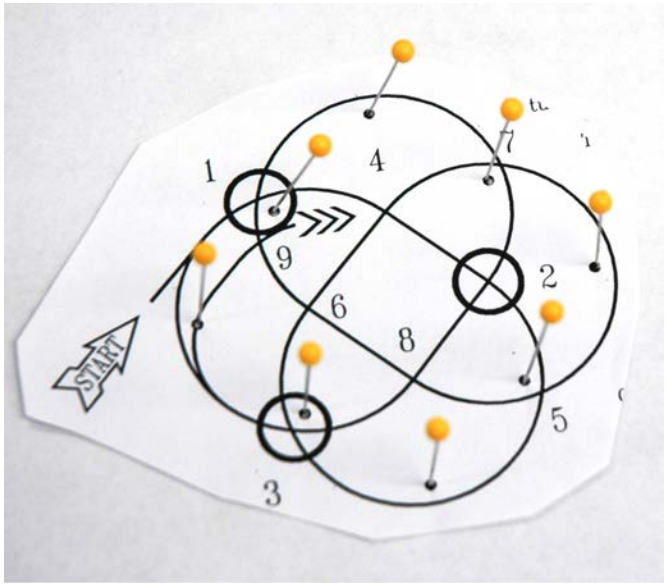
Distribute a length of cord to each cadet.

Demonstrate each step and have the cadets follow along.

STEPS TO MAKING A ROUND MAT (WEAVING METHOD)

1. Cut out the round mat pattern.
2. With the pattern on a knot-weaving board, put a straight pin at each turning point (as illustrated in Figure 5).

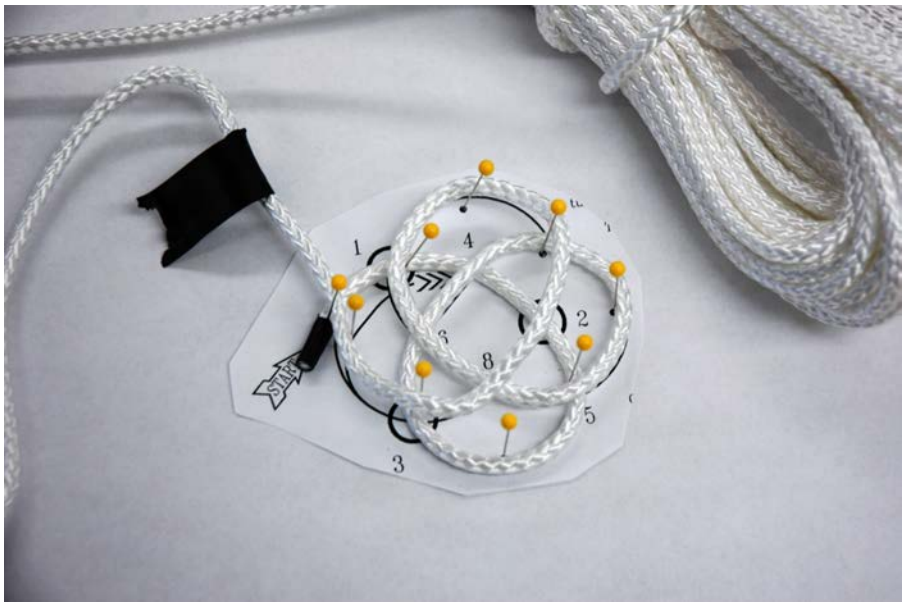
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Figure 5 Step 2

3. Lay the cord onto the pattern following the numbers from start to finish ignoring the underpasses (as illustrated in Figure 6). Mark the one-third position and remove the cord from the pattern. Cut the cord to a length equal to three times the one-third length plus 30 cm (12 inches).



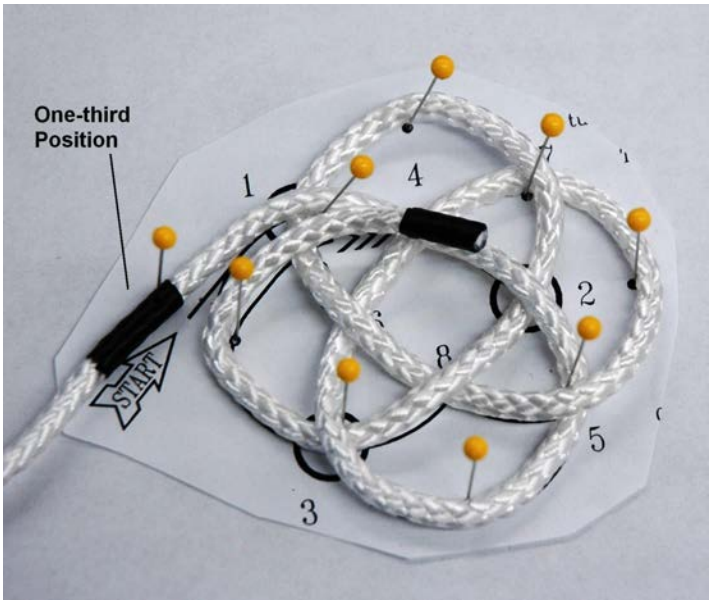
Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Figure 6 Step 3

4. Pin the cord's one-third position onto the outlined arrowhead at the starting point (as illustrated in Figure 7).

5. Lay the shorter length of cord onto the pattern following the numbers. At the turns, lay the cord around the pins and continue (as illustrated in Figure 7). Pay attention for the underpasses at crossings with circles.

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Figure 7 Step 5

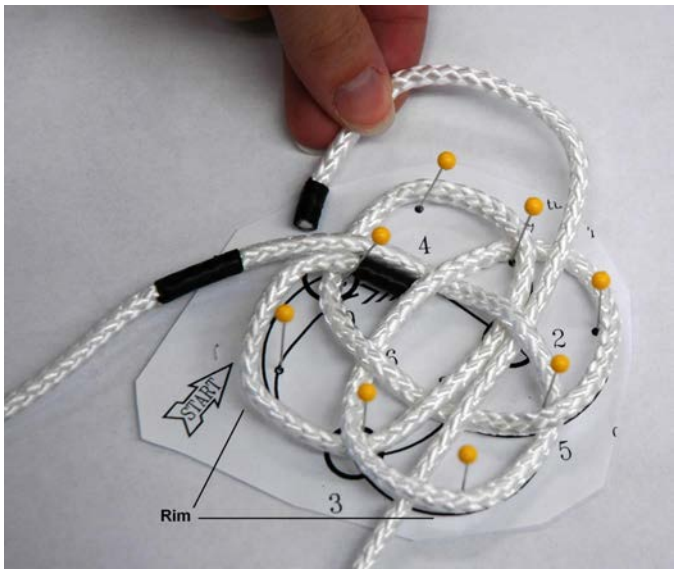
6. When the cord is back to crossing number 1, the initial tying sequence is complete. Check to ensure that the over and under sequence has been maintained from start to finish.

Any errors must be corrected now.

Once the initial lay of cord is complete, the pattern is no longer required.

7. Lay the remaining two-thirds of the cord following the previously laid cord in the opposite direction (as illustrated in Figure 8).

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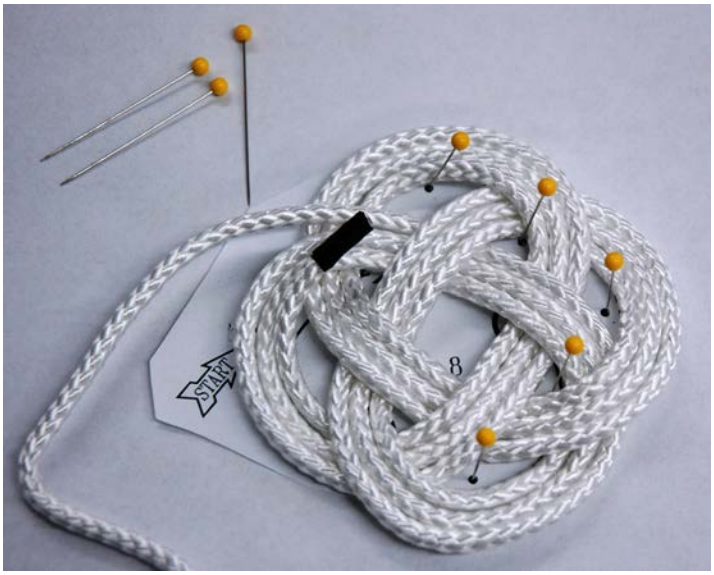


Note. Created by Director CAdets 3, 2007, Ottawa, ON: Department of National Defence.

Figure 8 Step 7

Avoid drawing or pulling the cord tight as this will cause the mat to curl up at the rim or on the corners.

8. When there are three leads, remove the pins from the corkboard (as illustrated in Figure 9).



Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Figure 9 Step 8

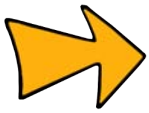
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9. To finish the mat, the cord can be glued to its adjacent cord for about four cord diameters and the excess cord can be trimmed (as illustrated in Figure 10).



Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Figure 10 Step 9



An alternative to finishing larger diameter cord is to sew the cord to its adjacent cord for about four cord diameters, whip the ends and trim the excess.



The cadets may start the additional round mat pattern located at Attachment C if there is time remaining in this period.

CONFIRMATION OF TEACHING POINT 2

The cadets' making a round mat will serve as the confirmation of this TP

END OF LESSON CONFIRMATION

The cadets' making a round mat will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

The cadets may complete the additional round mat pattern located at Attachment C.

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METHOD OF EVALUATION

Nil.

CLOSING STATEMENT

Mat weaving is an integral part of advanced ropework. The concepts introduced in this lesson lay the foundation for creating more complicated mats that may be used within the cadet program.

INSTRUCTOR NOTES / REMARKS

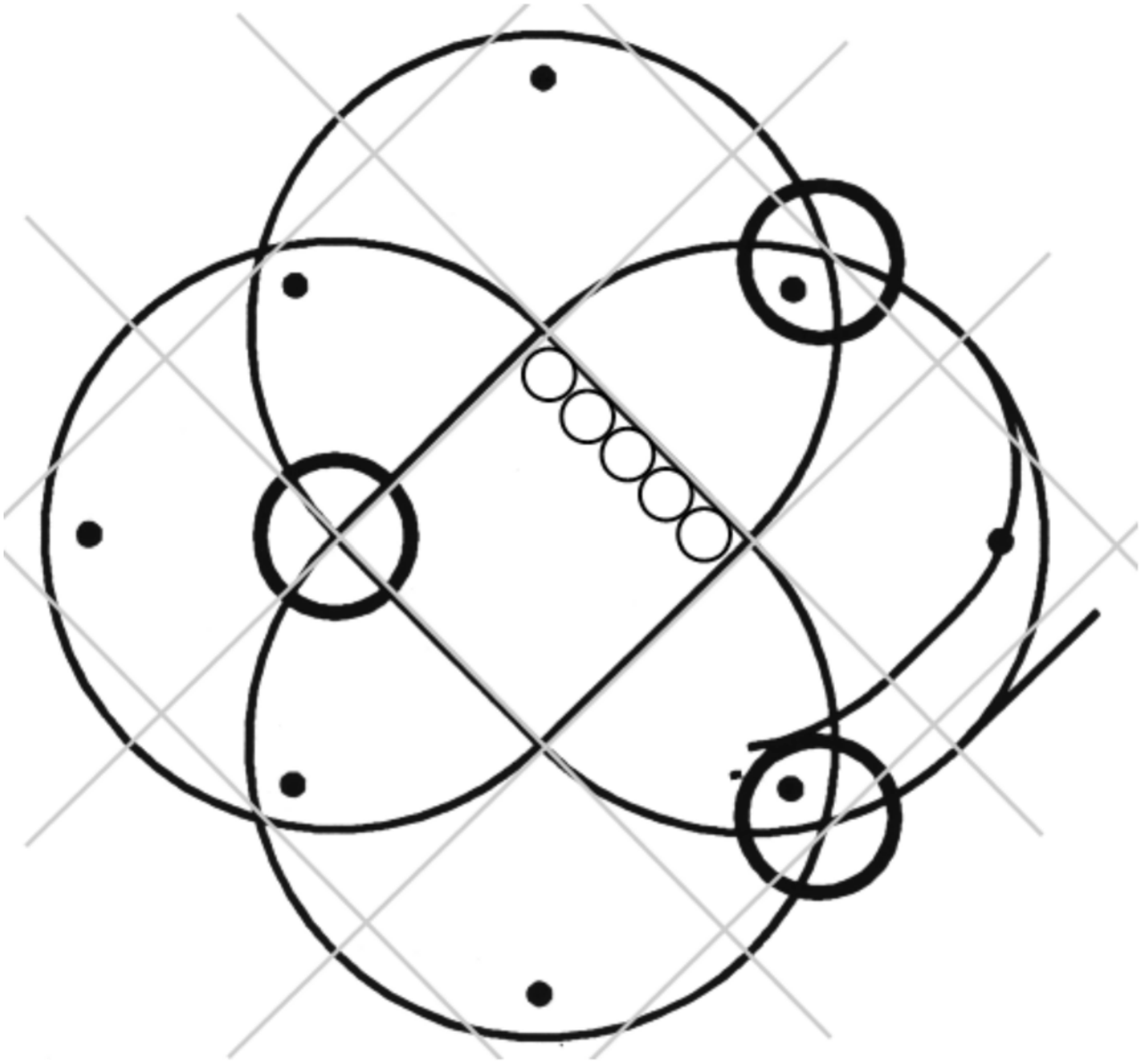
If time and resources permit, the instructor can be creative and demonstrate other methods of making the round mat.

REFERENCES

C1-064 ISBN 1-55267-986-1 Budworth, G. (2001). *The ultimate encyclopedia of knots & ropework*. London, England: Anness Publishing Limited.

C1-102 David Fukuhara. (2002). *Fancy knotting: An introduction*. Vancouver, BC: David Fukuhara.

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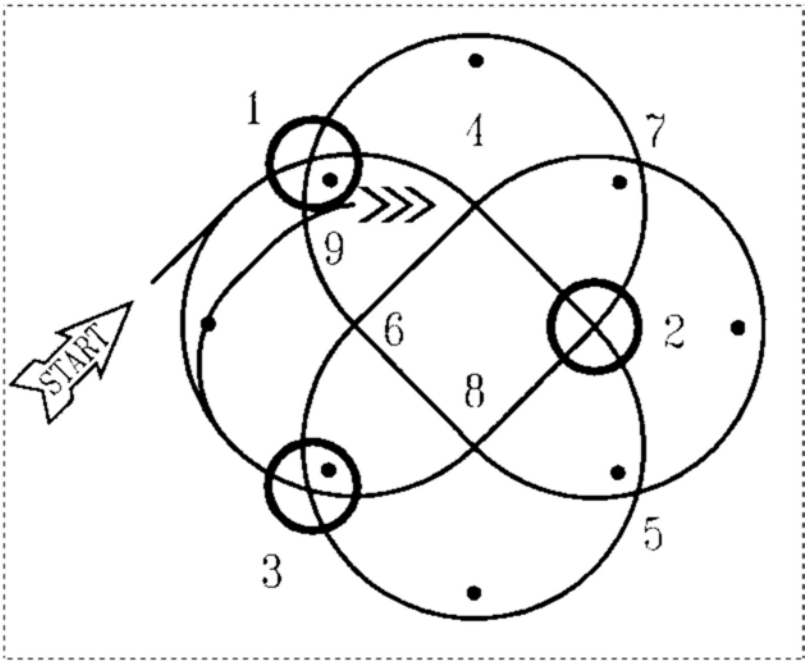
Pattern Grid

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ROUND MAT PATTERN

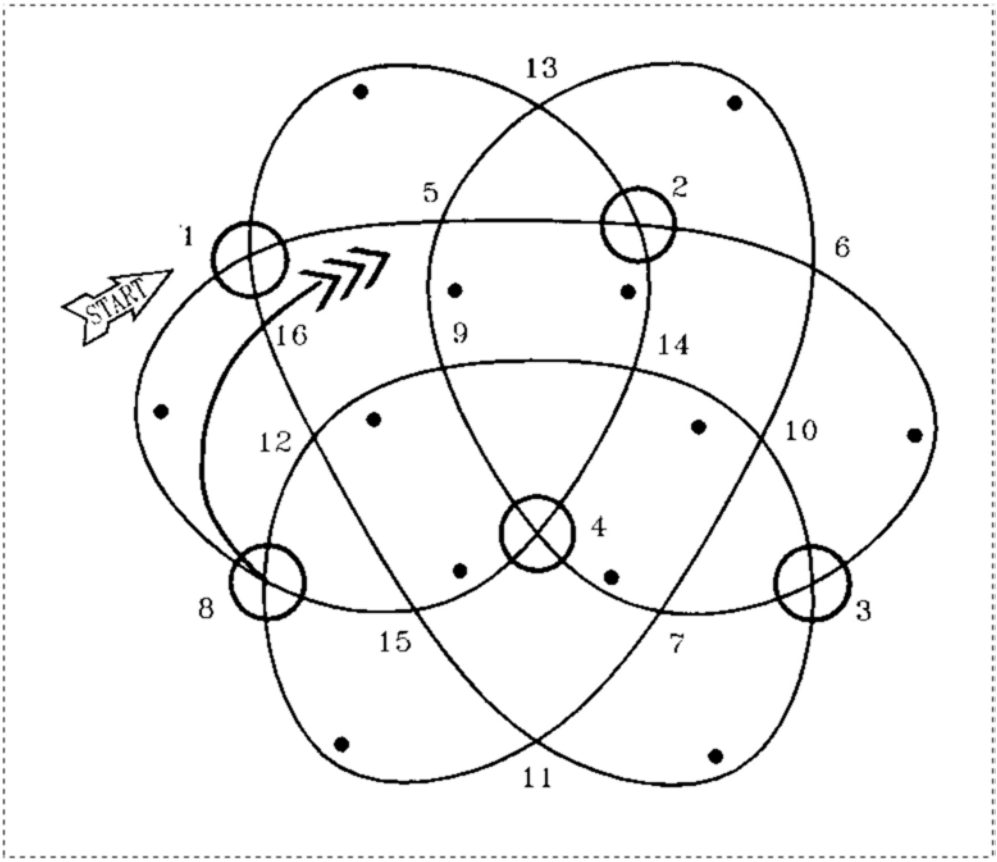


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ADDITIONAL ROUND MAT PATTERN



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