

Figure 1.7

**Higher-Level-Cognitive-Demand Mathematical Task Discussion Tool**

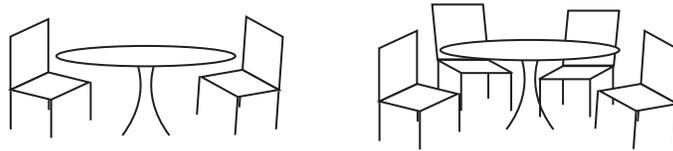
**Directions:** Determine a solution for the mathematical task that most closely relates to the grade-level responsibilities of your collaborative team, and then answer the questions at the end of the tool.

**Task for Kindergarten (K.CC.6)**

Blake has a number of cubes that is 1 more than 15. Jessica has a number of cubes that is 1 less than 17. Who has more cubes? How do you know?

**Task for Grade 1 (1.G.3)**

Calvin is at a birthday party where children will be sitting at tables. The chairs are already set up at each table. At one table, there are two chairs, and the mini birthday cake is cut in halves. At another table, there are four chairs, and a mini birthday cake of the same size is cut in fourths.



Calvin thinks that he will get the same amount of cake wherever he sits because he will get a piece of birthday cake no matter what. Tell if you agree or disagree, and say why.

**Task for Grade 2 (2.NBT.5)**

Alex was partway finished with a problem in mathematics class in which she needed to find  $48 + 25$  when it was time to leave for lunch. The teacher picked up her paper and was not sure if Alex was correct. Describe how Alex could be correct as well as the last step she still had to complete.

$$\begin{array}{r} 48 + 25 \\ 40 + 20 = 60 \\ 8 + 2 = 10 \\ 60 + 10 = 70 \end{array}$$

**Task for Grade 3 (3.OA.4)**

A student in your class is asked to solve  $6 \times 7$  without drawing pictures. The student does not know the fact. Provide two different ways the student could use multiplication to solve the fact by using other facts the student might know.

**Task for Grade 4 (4.OA.2)**

Write four different story problems to correspond to the following expression:  $46 \div 4$ . Each problem should lead to a different answer. The answers to the problems should be  $11\frac{1}{2}$ , 12, 11, and 2. Do not use the words *estimate*, *about*, or *round* in your problems.

**Task for Grade 5 (5.NF.4a and 5.NF.6)**

Write a word problem for  $\frac{2}{3} \times \frac{3}{4}$ , then use a visual model to solve it that is supportive of the context used in your word problem.

**Questions for Each Task**

1. How are your collaborative team members' responses the same? How do they differ?
2. How do these tasks support the essential learning standards of the unit?
3. With which Mathematical Practices or processes might students engage while solving these tasks?