



# A Thread Through Industry

Grade 5 Math

**Subject:** Grade 5 Math

**Lesson:** A Thread through Industry

**Standard Addressed:** Compute and solve real-world problems with multi-digit whole numbers and decimal numbers. (NC.5.NBT.7)

**Objectives:**

- Students will be able to add and subtract decimals to thousandths using models, drawings or strategies based on place value.
- Students will be able to multiply decimals with a product to thousandths using models, drawings, or strategies based on place value.

**Materials Needed:**

- Device for showing “A Thread through Industry” video (<https://youtu.be/oexrpJ0ODwM>)
- “A Thread through Industry” Grade 5 Math Activity

**Outline:**

- Prior to this lesson, students should be able to read, write, and compare decimals to thousandths.
- Show the 10-minute video.
- Discuss the activity prompt.
- Students finish the activity independently or with a partner.

**Take It Further:** Look at the tag of your favorite piece of clothing to determine what percent of each material it is made of.

**Cross-Curriculum Connection:** Determine where your favorite piece of clothing was made and write a few paragraphs about the textile workers who made it, the factory they work in, and where they may live.



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Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Activity 1.* For every turn of the skein winder, the first gear makes 1 tenth of a turn, and the last gear makes 1 hundredth of a turn.

- a. If you turn the winder 361 times how many times does the first gear turn?  
(Show your work)
- b. How many times does the last gear turn?  
(Show your work)

*Activity 2.* One turn of the winder will wrap 6.75 feet of thread around the wheel. If the weaver turns the winder 13.77 times:

- a. How many inches of thread will be wrapped on the wheel?  
(Show your work)
- b. How many yards of thread will be wrapped on the wheel?  
(Show your work)



*Activity 3.* Each spoke of the skein winder costs about 0.19 shillings to make. There are 5 spokes altogether. How much will all the spokes cost to make?

Shade in the boxes below to represent the equation.






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## ANSWER KEY

*Activity 1.* For every turn of the skein winder, the first gear makes 1 tenth of a turn, and the last gear makes 1 hundredth of a turn.

- a. If you turn the winder 361 times how many times does the first gear turn?

(Show your work)  $361 \times 0.1 = 36.1$

- b. How many times does the last gear turn?

(Show your work)  $361 \times 0.01 = 3.61$

*Activity 2.* One turn of the winder will wrap 6.75 feet of thread around the wheel. If the weaver turns the winder 5.6 times:

- a. How many inches of thread will be wrapped on the wheel?

(Show your work)  $6.75 \text{ feet} \times 12 \text{ inches} = 81 \text{ inches} \times 5.6 \text{ turns} = 453.6 \text{ inches}$

- b. How many yards of thread will be wrapped on the wheel?

(Show your work)  $6.75 \text{ feet} \div 3 \text{ feet} = 2.25 \text{ yards} \times 5.6 = 12.6 \text{ inches}$

*Activity 3.* Each spoke of the skein winder costs about 0.12 shillings to make. There are 5 spokes altogether. How much will all the spokes cost to make?  $0.12 \times 5 = 0.6 \text{ shillings}$

Shade in the boxes below to visualize the equation.

