

7-3 TASK

T-SHIRTS

(Using the MathLinks Rubric) See Activity Routines in the Teacher Portal for directions.

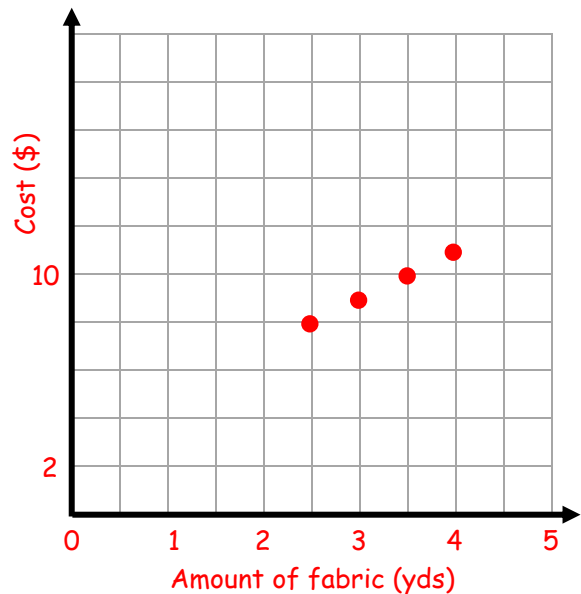
A company makes custom t-shirts in four sizes: S, M, L, and XL.

The following table shows a breakdown of the costs to make one t-shirt for each size.

1. Calculate the total cost for each shirt size.

Size	Amount of Fabric (in yards)	Cost of Fabric (per yard)	Cost of Labor	Total Cost for each shirt
S	2.5	\$2	\$3	\$8
M	3	\$2	\$3	\$9
L	3.5	\$2	\$3	\$10
XL	4	\$2	\$3	\$11

2. Make a graph of the data showing the amount of fabric on the x-axis and the total cost for each shirt on the y-axis. Label and scale the graph appropriately.



3. Does the relationship appear to be proportional? Explain.

No, it is not proportional.

The data does not make a straight line through the origin.

4. If you were to draw a “trend line” through the points, where would that line cross the y-axis? What might this value represent in the context of the problem?

The graph would cross the y-axis at 3, or at the point (0,3). This value represents the cost of labor, since it is \$3 for labor no matter the amount of fabric.

5. What is the increase in cost per 1 yard of fabric? How is this value represented in your graph?

The increase in cost is \$2 per yard of fabric. One representation of this is from (3,9) to (4,11). The fabric increases by 1 yard (x-coordinates), and the amount increases by \$2 (y-coordinates).