5 A high-speed train travels a distance of 750 miles from Anderton to Deemsworth at an average speed of 150 miles per hour. The train leaves Anderton at 10:00 A.M. and is scheduled to arrive in Deemsworth at 2:00 P.M.

On the lines below, explain whether or not the train will be on time. Use mathematics to justify the answer in your explanation.

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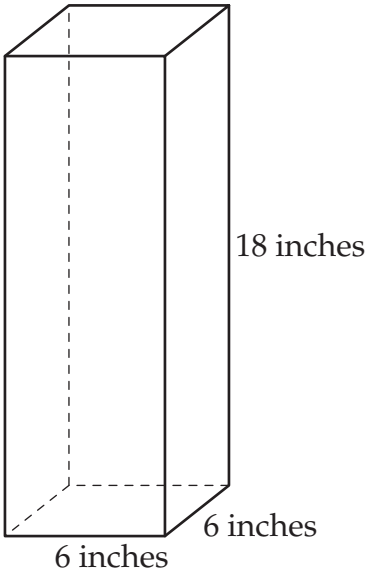
Go On

2 The Champion Lamp Company created a lamp base in the shape of a rectangular prism, as shown in the diagram below.



Each lamp base is shipped in a box that has a volume that is 25% more than the volume of the lamp base.

What is the volume, in cubic inches, of the box?

Show All Work

Answer _____ cubic inches

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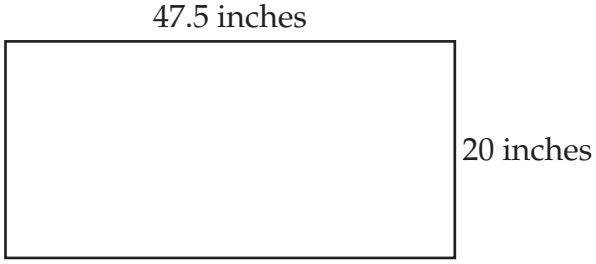
3 Brian went to the junkyard to buy a piece of metal for an art project. He found the rectangular piece shown in the diagram below.



The junkyard charges $0.03 per square inch for pieces of metal.

How much will Brian pay for the metal?

Show All Work

Answer $ _____

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5 Ms. Warner developed a budget for a project she is working on. Her budget is shown in the first two columns of the table below.

Project Budget

Category	Cost (in thousands of dollars)	Cost After Reduction (in thousands of dollars)
Research	200	
Development	160	
Production	140	
Marketing	100	
TOTAL	600	

Ms. Warner's boss gave her the following directions:

- reduce the total budget by 20%
- do NOT reduce the amount spent on Marketing
- at least two categories must be reduced

Use these directions to complete the table above. Show your work in the box below.

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