

5ACE Exercise 17

Investigation 5

Filling and Wrapping

17. For every ton of paper that is recycled, about **17 trees** and **3.3 yd³** of landfill space are saved. In the United States, the equivalent of 500,000 trees are used each week to produce the Sunday papers.

Suppose all the Sunday papers this week are made from **recycled paper**. How much landfill is saved?

HINT When 1 ton of paper is recycled, it saves 17 trees and 3.3 yd³ of landfill. So, if you had 2 tons of recycled paper, you would save 34 trees (2 x 17) and 6.6 yd³ (2 x 3.3) of landfill (see table).

Recycled Paper

| Tons of Paper | Trees Saved | Landfill Saved (yd ³) |
|---------------|-------------|-----------------------------------|
| 1 | 17 | 3.3 |
| 2 | 34 | 6.6 |
| 3 | 61 | 9.9 |
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| | | |
| | | |
| | 500,000 | |

If you continued the chart and had 3 tons of recycled paper, you would save 61 trees (3 x 17) and 9.9 yd³ (3 x 3.3) of landfill. If the chart continued until you had 500,000 trees, how much landfill would you save?