| Matchsticks | Rubric |  |
| :---: | :---: | :---: |
|  | points | section points |
| Shows that: <br> Volume of matchstick $\begin{aligned} & =\frac{1}{10} \times \frac{1}{10} \times 2 \text { cubic inches } \\ & =\frac{1}{50} \text { cubic inches } \end{aligned}$ | 3 | 3 |
| Gives correct answer: ${ }^{\text {a }} \mathbf{7 . 2}$ million <br> Volume of tree <br> $=\frac{1}{3} \times \pi \times 80$ cubic feet <br> a 83.77 cubic feet <br> Number of matchsticks ${ }^{\text {a }} 83.77 \div\left(\frac{1}{50} \times \frac{1}{12^{3}}\right)$ <br> a 7.2 million <br> (2 for volume of tree divided by volume of matchstick, 1 for unit conversion, 1 for answer) | 3 <br> 2 <br> 2 | 7 |
| Total Points |  | 10 |

