

Trekking Through Transylvania Answer Key

Use this page to organize your equations and show your work.

Remember:

$$\text{area} = \text{length} \times \text{width}$$

$$\text{length} = \frac{\text{area}}{\text{width}}$$

$$\text{width} = \frac{\text{area}}{\text{length}}$$

m = meters

m² = square meters

#1

$$\text{length} = 50\text{m}$$

$$\text{width} = 68\text{m}$$

$$\text{area} = 3400\text{m}^2$$

perimeter:

$$50 + 68 + 50 + 68 = 236\text{m}$$

$$\begin{array}{r} 68 \\ 50 \overline{)3400} \\ \underline{300} \\ 400 \\ \underline{400} \\ 0 \end{array}$$

#2

$$\text{length} = 115\text{m}$$

$$\text{width} = 68\text{m}$$

$$\text{area} = 7820\text{m}^2$$

perimeter:

$$115 + 68 + 115 + 68 = 366\text{m}$$

$$\begin{array}{r} 115 \\ 68 \overline{)7820} \\ \underline{68} \\ 102 \\ \underline{68} \\ 340 \\ \underline{340} \\ 0 \end{array}$$

#3

$$\text{length} = 33\text{m}$$

$$\text{width} = 45\text{m}$$

$$\text{area} = 1485\text{m}^2$$

perimeter:

$$33 + 45 + 33 + 45 = 156\text{m}$$

$$\begin{array}{r} 33 \\ 45 \overline{)1485} \\ \underline{135} \\ 135 \\ \underline{135} \\ 0 \end{array}$$

#4

$$\text{length} = 68\text{m}$$

$$\text{width} = 76\text{m}$$

$$\text{area} = 5168\text{m}^2$$

perimeter:

$$68 + 76 + 68 + 76 = 288\text{m}$$

$$\begin{array}{r} 68 \\ 76 \overline{)5168} \\ \underline{456} \\ 608 \\ \underline{608} \\ 0 \end{array}$$

#5

$$\text{length} = 37\text{m}$$

$$\text{width} = 15\text{m}$$

$$\text{area} = 555\text{m}^2$$

perimeter:

$$37 + 15 + 37 + 15 = 104\text{m}$$

$$\begin{array}{r} 15 \\ 37 \overline{)555} \\ \underline{37} \\ 185 \\ \underline{185} \\ 0 \end{array}$$

#6

$$\text{length} = 62\text{m}$$

$$\text{width} = 59\text{m}$$

$$\text{area} = 3658\text{m}^2$$

perimeter:

$$62 + 59 + 62 + 59 = 242\text{m}$$

$$\begin{array}{r} 62 \\ 59 \overline{)3658} \\ \underline{354} \\ 118 \\ \underline{118} \\ 0 \end{array}$$

#7

$$\text{length} = 67\text{m}$$

$$\text{width} = 63\text{m}$$

$$\text{area} = 4221\text{m}^2$$

perimeter:

$$67 + 63 + 67 + 63 = 260\text{m}$$

$$\begin{array}{r} 67 \\ 63 \overline{)4221} \\ \underline{378} \\ 441 \\ \underline{441} \\ 0 \end{array}$$

#8

$$\text{length} = 130\text{m}$$

$$\text{width} = 65\text{m}$$

$$\text{area} = 8,450\text{m}^2$$

perimeter:

$$130 + 65 + 130 + 65 = 390\text{m}$$

$$\begin{array}{r} 65 \\ 130 \overline{)8450} \\ \underline{780} \\ 650 \\ \underline{650} \\ 0 \end{array}$$

#9

$$\text{length} = 123\text{m}$$

$$\text{width} = 18\text{m}$$

$$\text{area} = 2214\text{m}^2$$

perimeter:

$$123 + 18 + 123 + 18 = 282\text{m}$$

$$\begin{array}{r} 18 \\ 123 \overline{)2214} \\ \underline{123} \\ 984 \\ \underline{984} \\ 0 \end{array}$$

Now add up all the perimeters to find the total length of the trek through Transylvania!

$$366 + 236 + 156 + 288 + 104 + 242 + 260 + 390 + 282$$

$$\text{Total length} = \underline{2,324\text{m}}$$