

### Answers

1)  $\frac{5}{8}$

2)  $1\frac{3}{10}$

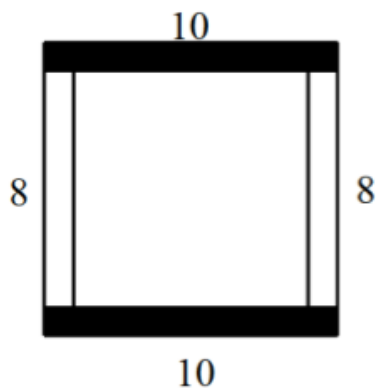
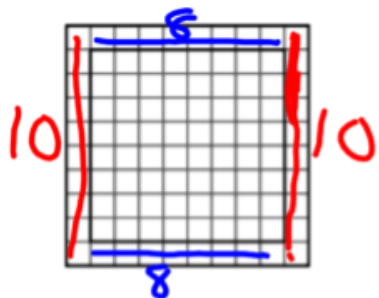
3)  $\frac{1}{18}$

4)  $\frac{13}{20}$

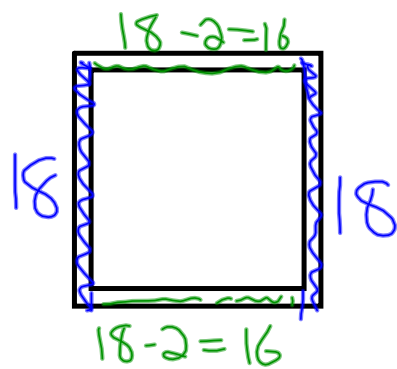
5)  $\frac{1}{6}$  or  $\frac{2}{12}$

Whose method was this?

$$10 + 10 + 8 + 8 = 36$$

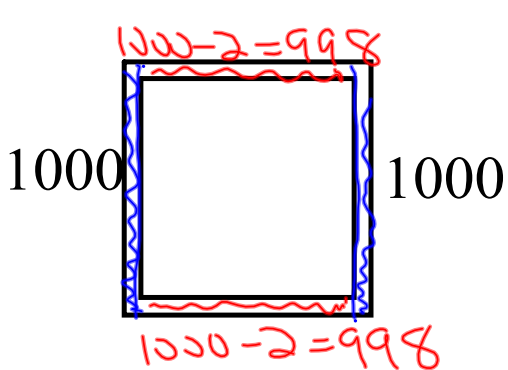


Use this method to determine the number of tiles in a square frame that is 18 tiles by 18 tiles.



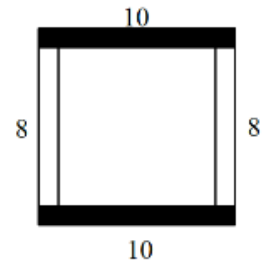
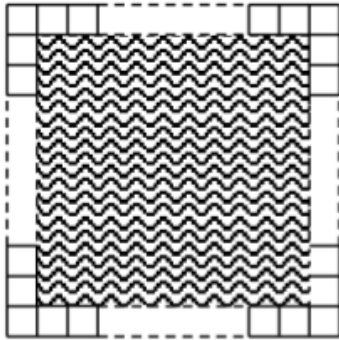
$$\begin{array}{r} 2 \\ 16 \\ 16 \\ 18 \\ + 18 \\ \hline 68 \text{ tiles} \end{array}$$

Use this method to determine the number of tiles in a square frame that is 1000 tiles by 1000 tiles.



$$\begin{array}{r} 998 \\ 998 \\ 1000 \\ 1000 \\ \hline 3996 \text{ tiles} \end{array}$$

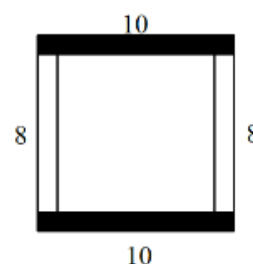
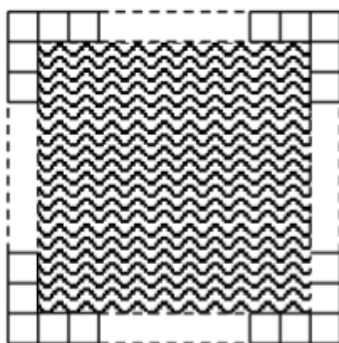
Can you use this method to find the number of tiles in a square frame with any side length?



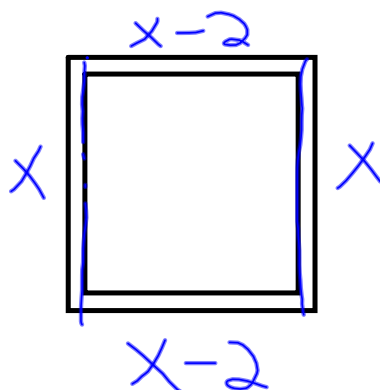
Work with your team to write a general set of directions in words, for any square frame.

" Use all the tiles on two of the sides. Subtract two tiles from each of the other sides. Then add your four numbers together. "

A variable (such as  $x$ ) can represent the *unknown* side length.



With your team find a way to shorten your set of directions by using a variable (such as  $x$ ) to stand for “the number of tiles in one side of the frame.”



$$x + x + x - 2 + x - 2$$

$$3.2 \div 5$$

Handwritten long division of  $3.2 \div 5$ . The quotient  $0.64$  is circled in black. The divisor  $5$  is written in blue to the left of the dividend  $3.2$ , which is also in blue. The division process is shown with black ink: a horizontal line under  $3.2$ , a subtraction of  $0$  from  $3$  to get  $3$ , a subtraction of  $30$  from  $32$  to get  $2$ , and a final subtraction of  $20$  from  $20$  to get  $0$ . A vertical line separates the quotient from the remainder, and a horizontal line is drawn under the final remainder  $0$ .

$$\begin{array}{r} 0.64 \\ 5 \overline{) 3.20} \\ \underline{-0} \phantom{0} \\ 3 \phantom{0} \\ \underline{-30} \phantom{0} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

$$3.2 \div 3$$

$$\begin{array}{r} 1.0666 \\ 3 \overline{) 3.2000} \\ \underline{-3} \phantom{0000} \\ 0 \phantom{0000} \\ \underline{-0} \phantom{000} \\ 0 \phantom{000} \\ \underline{-0} \phantom{00} \\ 20 \phantom{0} \\ \underline{-18} \phantom{0} \\ 20 \\ \underline{-18} \\ 20 \\ \underline{-18} \\ 20 \\ \underline{-18} \\ 2 \end{array}$$

$$1.0\overline{6}$$

repeating decimal