

There is only 1 way of such quadrilateral.

We have quadrilateral with two equal diagonals besides the point of the intersection of the diagonals divide them in proportion 10 to 18. And as we have triangle then the length of the diagonal – x – should be less the 16. So, we have:

$$\left\{ \begin{array}{l} \frac{a}{x-a} = \frac{10}{18} = \frac{5}{9} \\ x \leq 16 \end{array} \right. \Rightarrow \left\{ \begin{array}{l} \frac{14a}{5} = x \\ x \leq 16 \\ x \in N \end{array} \right. \Rightarrow \left\{ \begin{array}{l} a = 5 \\ x = 14 \end{array} \right. \Rightarrow x = 14$$

So, the length of the diagonal is 14 cm. And it's the only way.

Answer: 1 way (diagonal equal 14 cm).