Trapezoid Midsegment Theorem

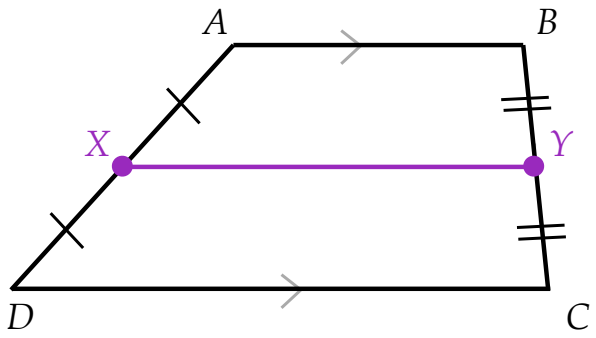
Name _____

Date _____ Period _____

Midsegment of a Trapezoid

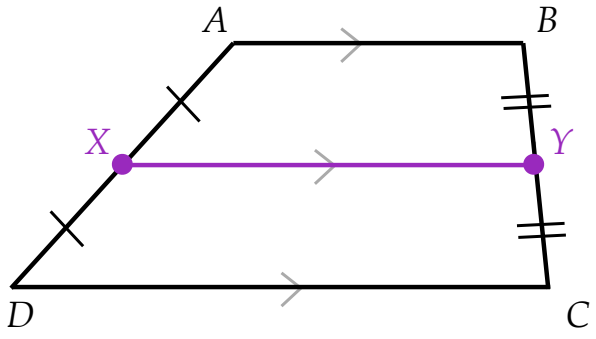
The segment that joins the midpoints of the trapezoid's legs.

$\overline{XY}$ is the midsegment of trapezoid $ABCD$



Trapezoid Midsegment Theorem

1) The midsegment of the trapezoid is parallel to the bases

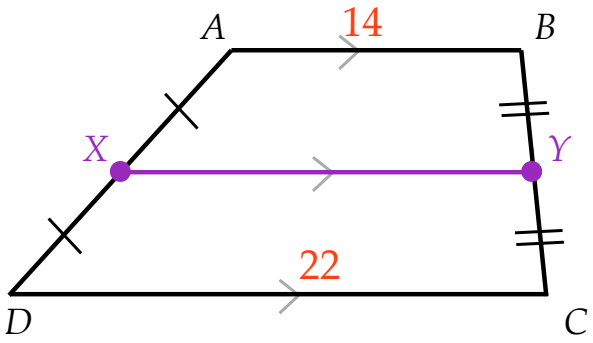


$\overline{XY} \parallel \overline{AB}$ and $\overline{XY} \parallel \overline{DC}$

Trapezoid Midsegment Theorem

1) The midsegment of the trapezoid is parallel to the bases

2) The measure of the midsegment is equal to one-half the sum of the measures of the bases.



$$XY = \frac{1}{2}(AB + DC)$$

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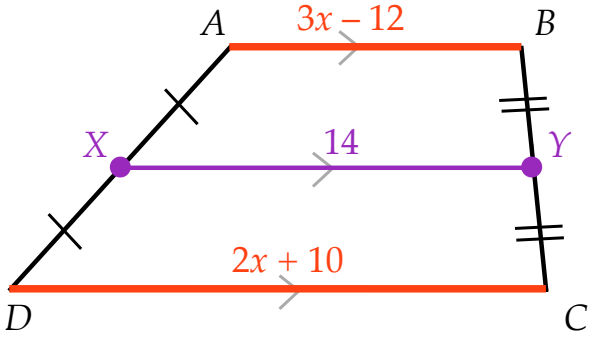
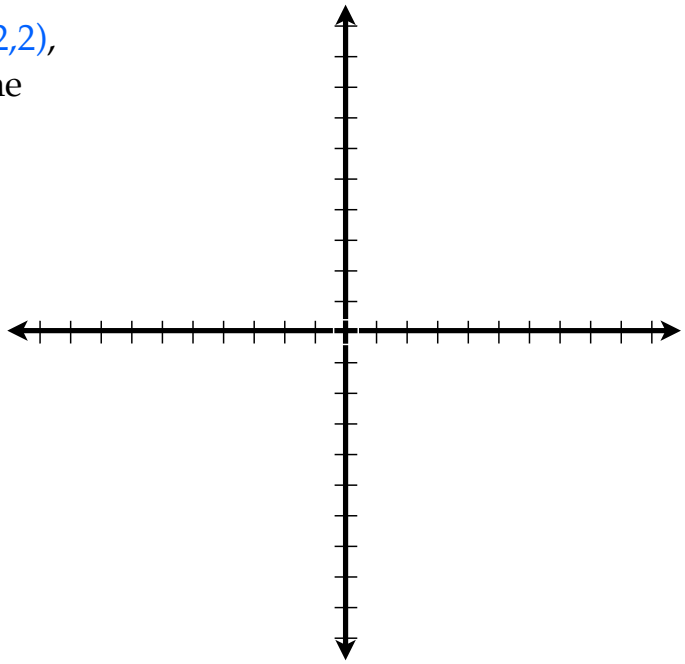


The vertices of trapezoid $ABCD$ are $A(6,-2)$, $B(2,2)$, $C(-3,2)$ and $D(-5,-2)$. Determine the length of the midsegment of trapezoid $ABCD$.



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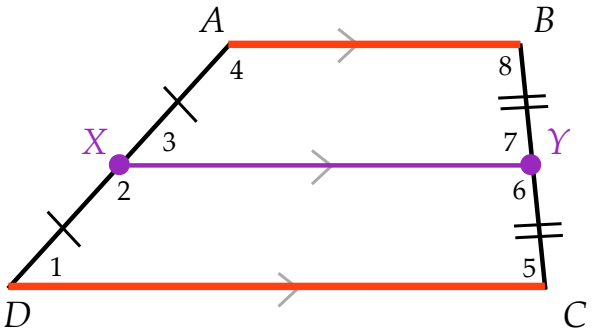

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