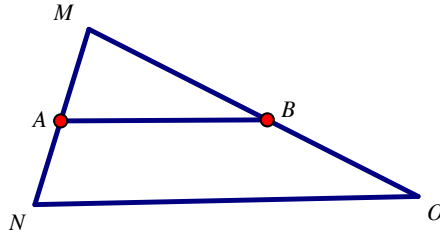


Midsegment of a Triangle Theorem

Line joining midpoints of two sides of a triangle is parallel to the third side and equal to half its length.

Use the figure on the right to answer the following questions.

A is the midpoint of \overline{MN}
B is the midpoint of \overline{MO}



1. If $AB = 12$, find NO .
2. If $ON = 22$, find AB .
3. If $AB = 2x - 1$ and $ON = 38$, find the value of x and AB .
4. If $AB = 18$ and $ON = 5x + 6$, find the value of x and ON .
5. If $AB = 4x + 3$ and $ON = 78$, find the value of x and AB .
6. If $AB = 12$ and $ON = 10x + 4$, find the value of x and ON .
7. If $AB = 2x - 1$ and $ON = 7x - 29$, find the value of x , AB and ON .
8. If $AB = 4x + 3$ and $ON = 7x + 11$, find the value of x , AB and ON .
9. If $m\angle A = 70^\circ$, find $m\angle N$.
10. If $\angle A = 60^\circ$, $\angle M = 40^\circ$, find the $m\angle N$ and $\angle O$