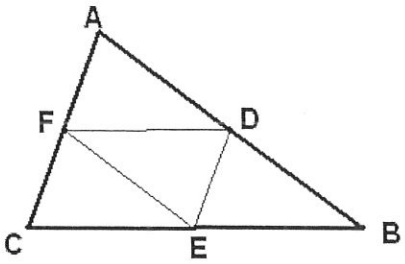
Section 5.4 Notes - The Triangle Midsegment Theorem

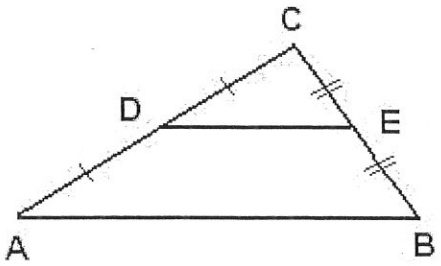
TLW apply properties of triangle midsegments

TLW create triangle midsegments on an oversized triangle so they can color it and make it pretty and hang it on their refrigerator

A _____

IS A SEGMENT THAT JOINS THE MIDPOINTS OF TWO SIDES OF THE TRIANGLE. EVERY TRIANGLE HAS _____ MIDSEGMENTS, WHICH FORM THE MIDSEGMENT TRIANGLE.





TRIANGLE MIDSEGMENT THEOREM

A MIDSEGMENT OF A TRIANGLE IS PARALLEL TO A SIDE OF THE TRIANGLE, AND ITS LENGTH IS HALF THE LENGTH OF THAT SIDE.

$$\overline{DE} \parallel \overline{AB} \qquad DE = \frac{1}{2}(AB)$$

~ PRACTICE ~

USE THE DIAGRAM TO THE RIGHT TO ANSWER THE QUESTIONS BELOW.
GIVEN: ΔABC, THE MIDPOINT OF THE SIDES ARE $L, M, and\ N$.

1. $\overline{LM} \parallel$ _____

2. $\overline{AB} \parallel$ _____

3. *if* $AC = 14$, *then* LN = _____

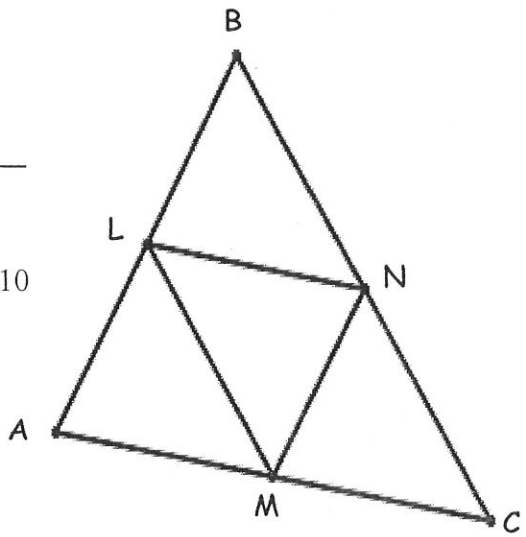
4. *if* $MN = 8$, *then* AB = _____

5. *if* $NC = 3$, *then* LM = _____

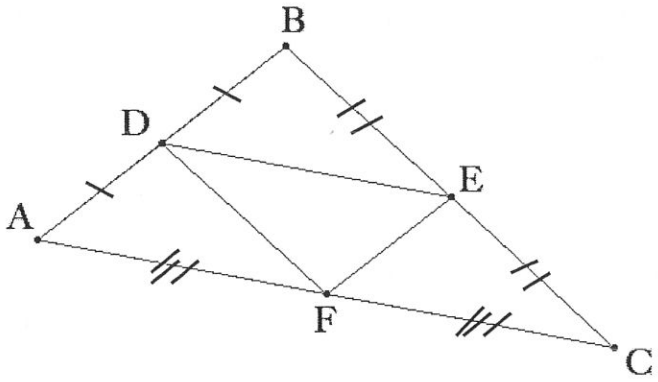
6. *if* $LN = 5$, *then* _____ = 10

7. *if* $LM = 3x + 1$ *and* $BC = 10x - 6$, *then* LM = _____

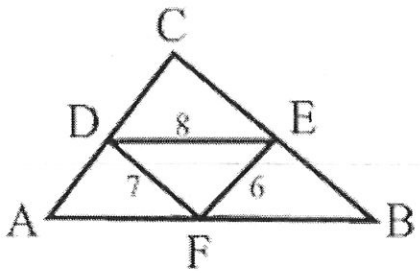
8. *if* $NM = x - 1$ *and* $AB = 3x - 7$, *then* AB = _____



9. GIVEN $BC = 12$, $DE = 7$, *and* $BD = 4$, FIND THE PERIMETER OF ΔBCA.



10. FIND THE PERIMETER OF ΔACB GIVEN THE DIAGRAM BELOW GIVEN THAT DE, EF, *and* DF ARE MIDSEGMENTS OF ΔACB.

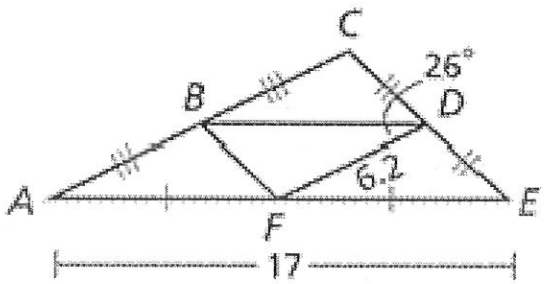


USE THE DIAGRAM ON THE RIGHT TO ANSWER THE FOLLOWING QUESTIONS 11 - 13.

11. $m\angle CBD$ = _____

12. BD = _____

13. AC = _____



EVEN SCOOBY-DOO USES MATH