Midsegment Theorem Worksheet   Name: _____
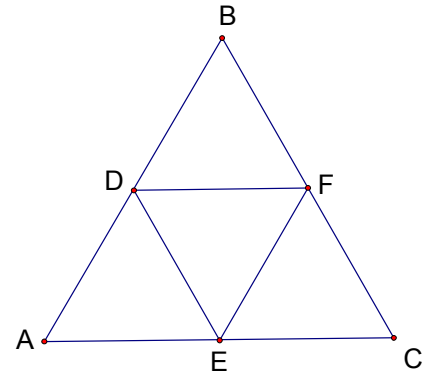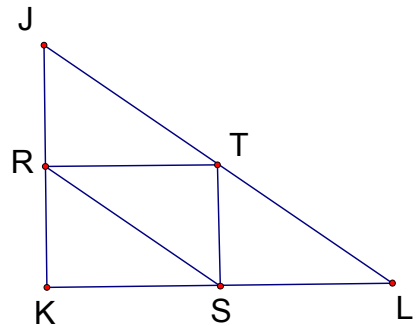
Use the diagram of $\triangle ABC$ where D, E, and F are the midpoints of the sides.

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

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

3.   If AB = 14, then EF = _____

4.   If AE = 8, then DF = _____

5.   If DE = 6, then BC = _____
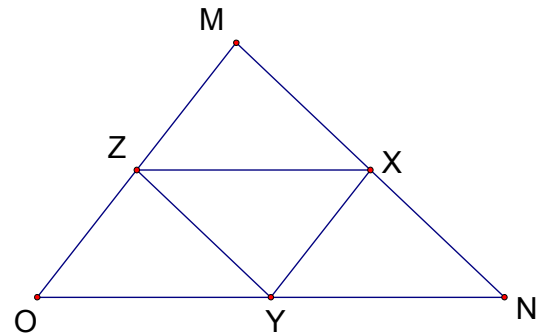
Use the diagram of $\triangle JKL$ where R, S, and T are midpoints of the sides, RK = 3, KS = 4, and $\overline{JK} \perp \overline{KL}$

6. Find the length of RS.

7. Find the length of JK.

8. Find the length of RT
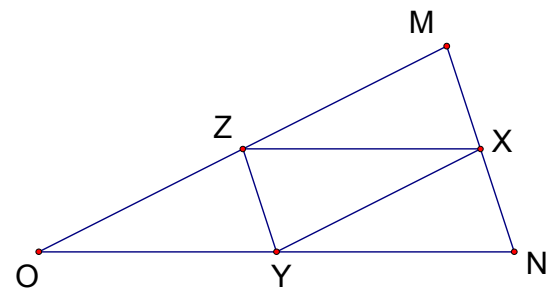
9. Find the perimeter of $\triangle JKL$.

Use the diagram of $\triangle MNO$ where X, Y, and Z are midpoints of the sides.
10.   If YZ = 3x + 1, and MN = 10x – 6 then YZ = _____

11.   If YX = x – 1, and MO = 3x – 7, then MO = _____

12.   If $m\angle MON = 48°$, then $m\angle MZX =$ _____

13.   If $m\angle MXZ = 37°$, then $m\angle MNO =$ _____

Use the diagram of $\triangle MNO$ where, X, Y, and Z are the midpoints.
14.   If YZ = 2x + 3, and MN = 5x – 14, then YZ = _____

15.   If YX = 3x – 4, and MO = 9x – 20, then MO = _____

Assume the middle line is a midsegment in the problems below:

2x - 8

2x + 8

x - 3

$\dfrac{1}{2}x$

2x - 6

$\dfrac{1}{2}x + 3$