SM 2

Name:_____ Period:_____

SM2 10.5 – Triangle Proportionality and Midsegments

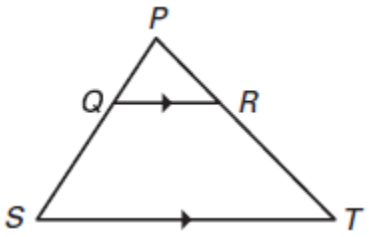
Complete the proportion using the figure to the right.

1. $\frac{PQ}{QS} = \frac{PR}{?}$

2. $\frac{?}{TP} = \frac{SQ}{SP}$

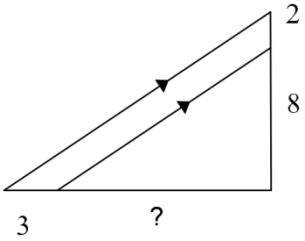
3. $\frac{PQ}{PS} = \frac{?}{PT}$

4. $\frac{TR}{?} = \frac{SQ}{QP}$



Find the missing length. Show your work!

5.



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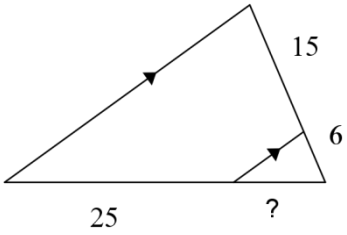

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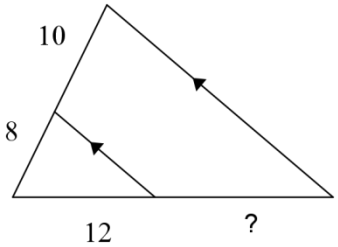

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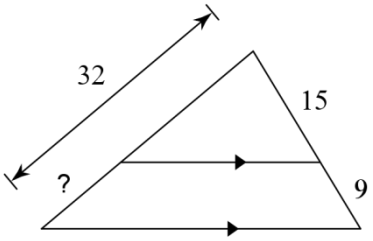

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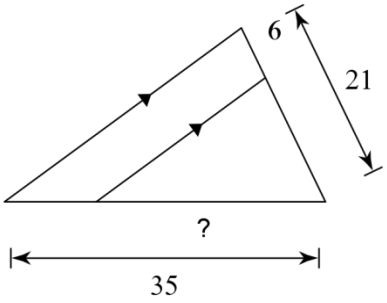
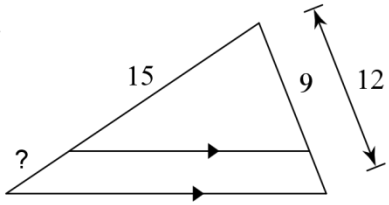
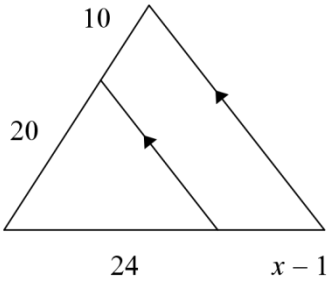


10.

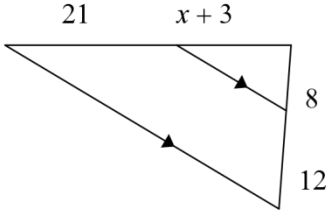


Solve for *x*. Show your work!

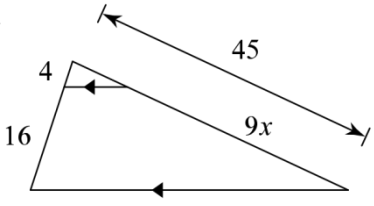
11.



12.

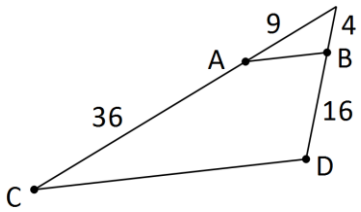


13.

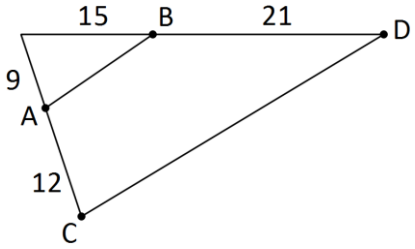


Given each diagram, determine whether $\overline{AB} \parallel \overline{CD}$. Show work to support your answer!

14.

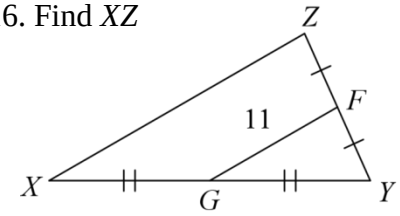


15.

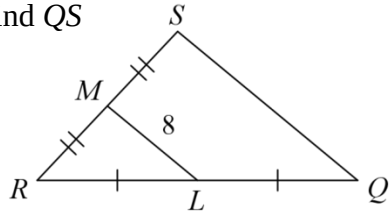


Find the missing length indicated.

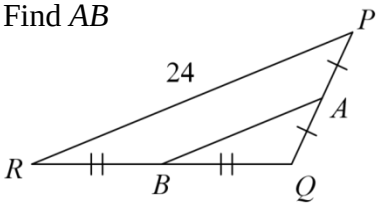
16. Find *XZ*



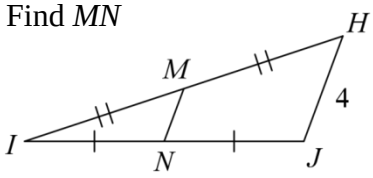
17. Find *QS*



18. Find *AB*

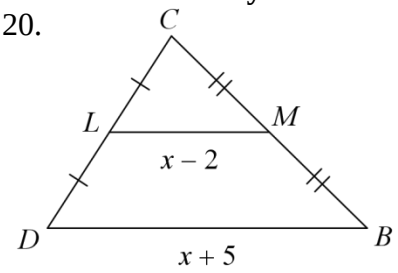


19. Find *MN*

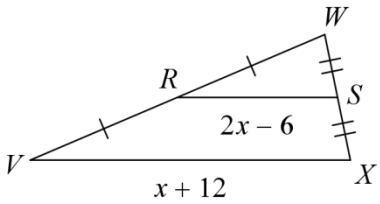


Solve for *x*. Show your work!

20.



21.



The sides of $\triangle DEF$ are all midsegments of $\triangle ABC$. Find each of the requested lengths.

22. *BD* = _____ *DA* = _____ *EF* = _____

CE = _____ *EB* = _____ *FD* = _____

CF = _____ *FA* = _____ *DE* = _____