



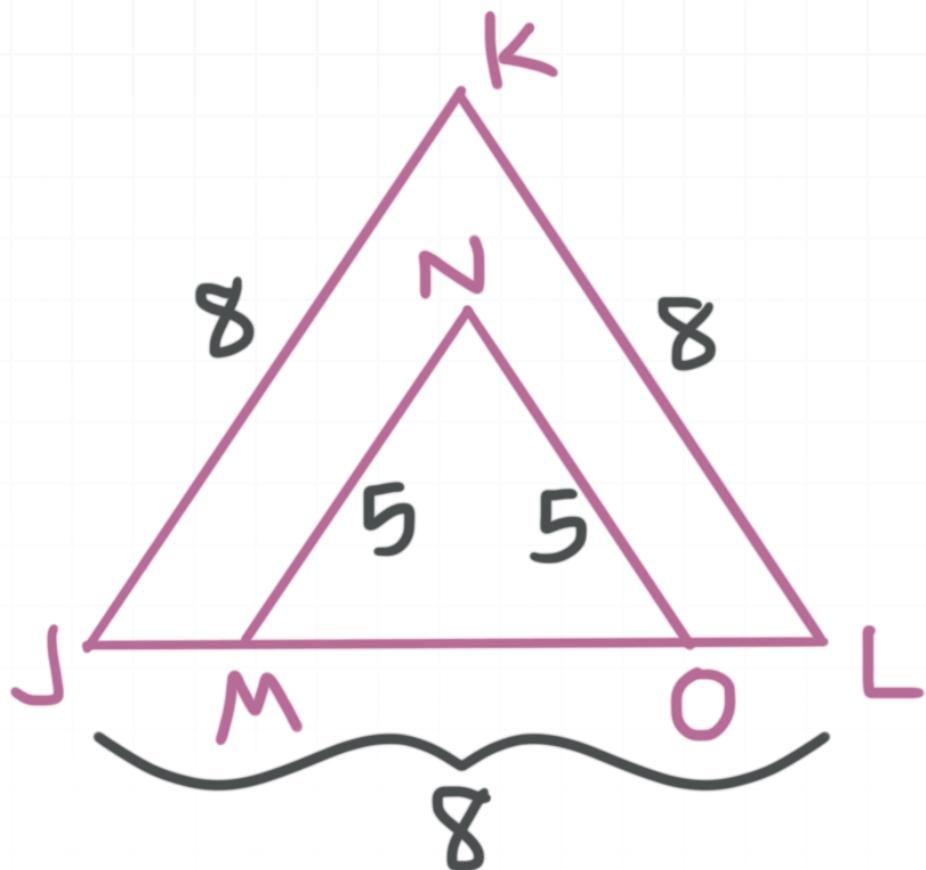
Geometry Workbook

Similarity

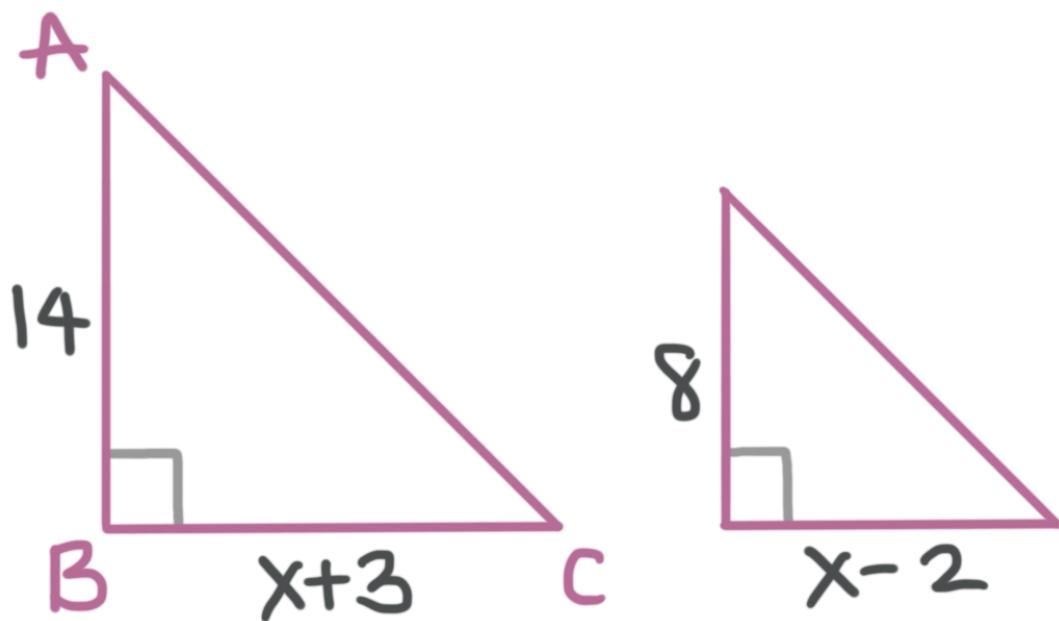
krista king
M A T H

SIMILAR TRIANGLES

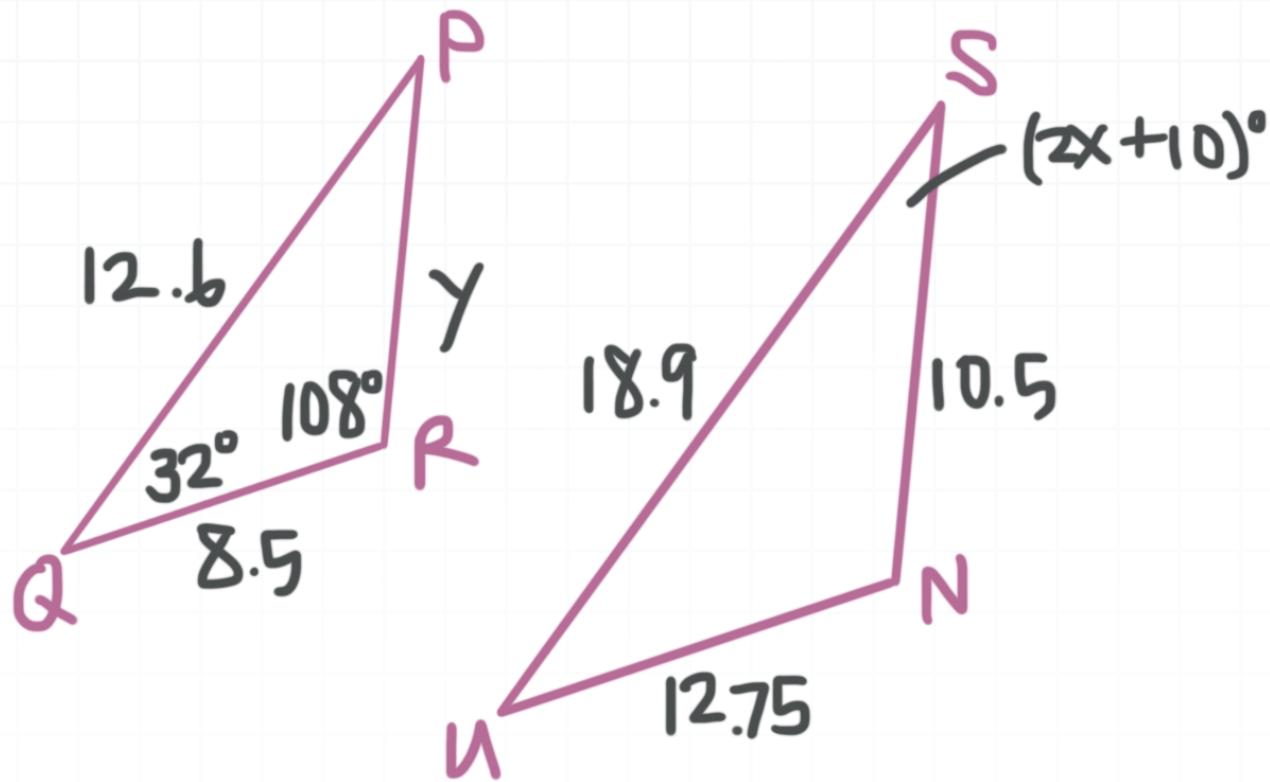
- 1. $\triangle JKL$ is similar to $\triangle MNO$. Find MO .



- 2. $\triangle ABC$ is similar to $\triangle DEF$. Set up a proportion to find the value of x .

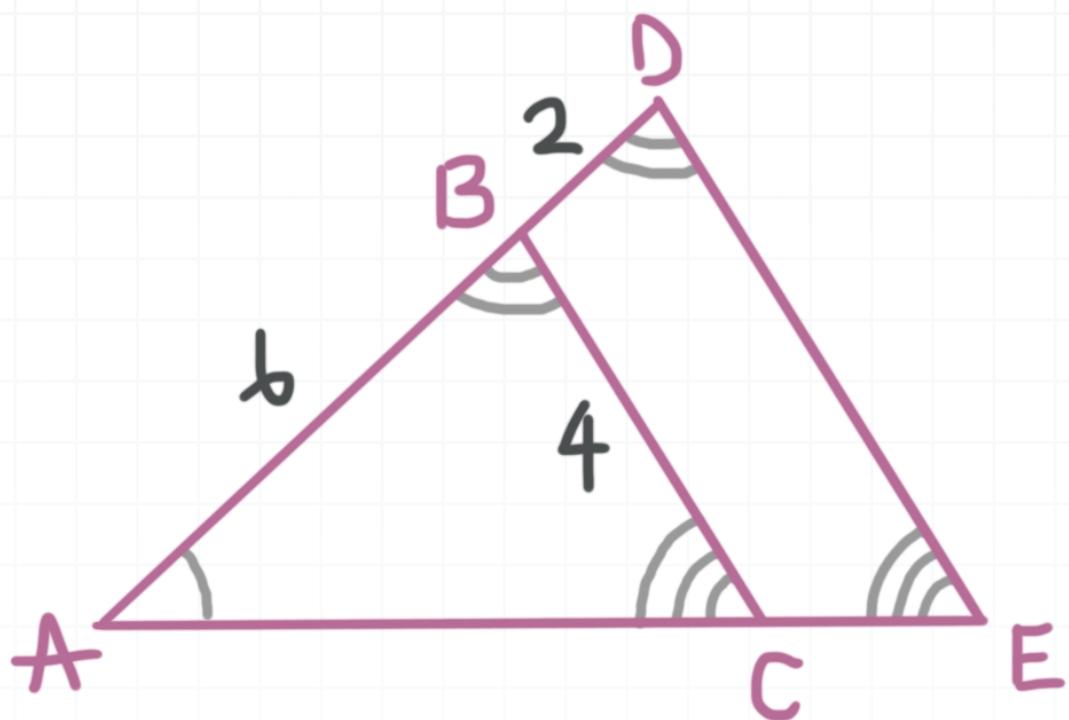


- 3. $\triangle PQR$ is similar to $\triangle SUN$. Find the values of x and y .

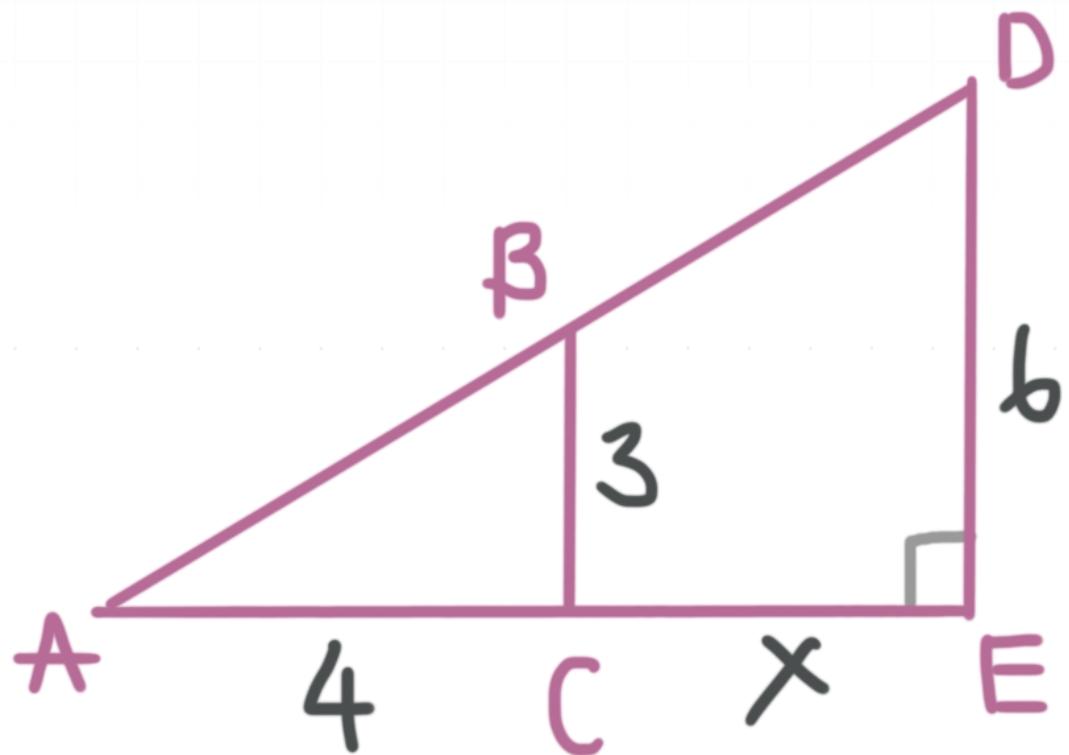


- 4. A 14-foot tree casts a 6-foot long shadow. A 3.5-foot tall child would have a shadow length of how many feet?

- 5. Find DE .

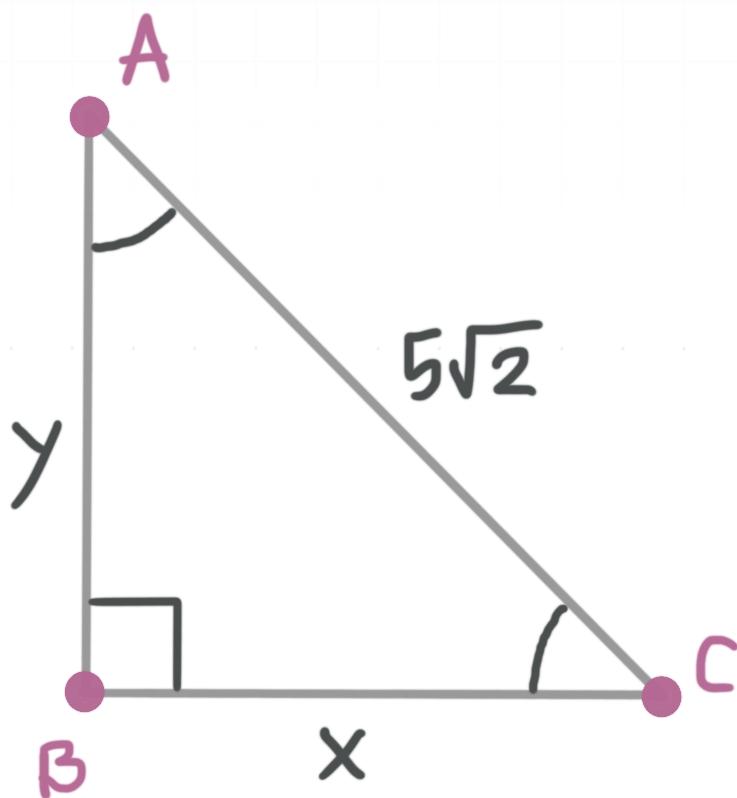


■ 6. Find CE .

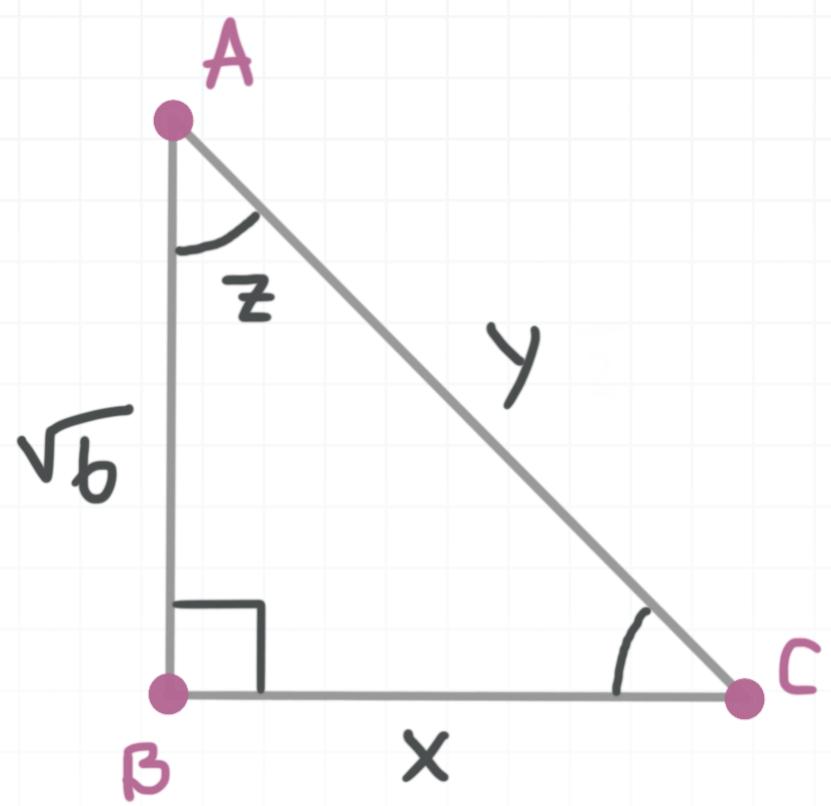


45-45-90 TRIANGLES

- 1. $\triangle PDX$ is an isosceles right triangle with vertex $\angle D$, and $PD = 4$. Find DX and XP .
- 2. A square has a perimeter of 40 meters. Find the length of the diagonal of the square.
- 3. Find the values of x and y .

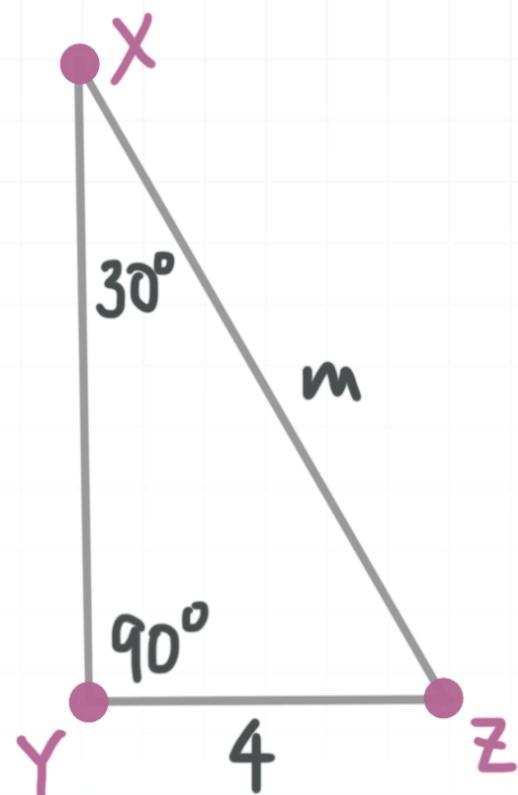


- 4. Find the values of x , y , and z .

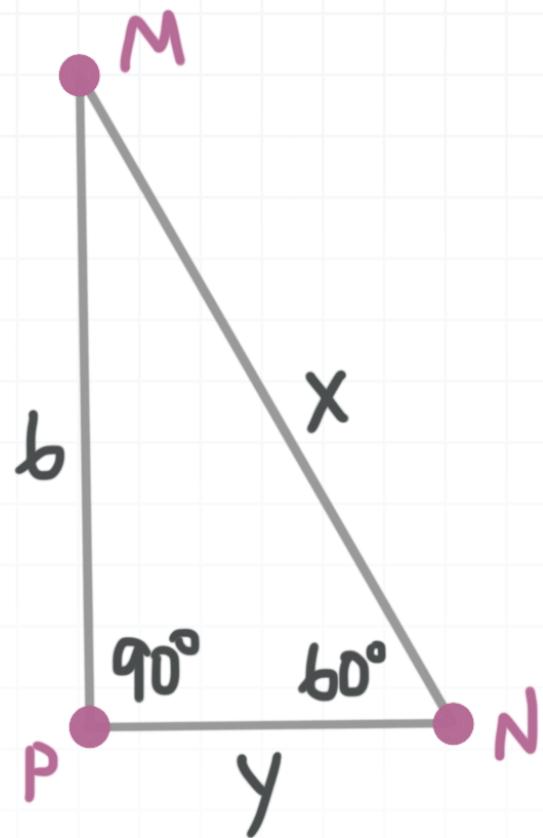


30-60-90 TRIANGLES

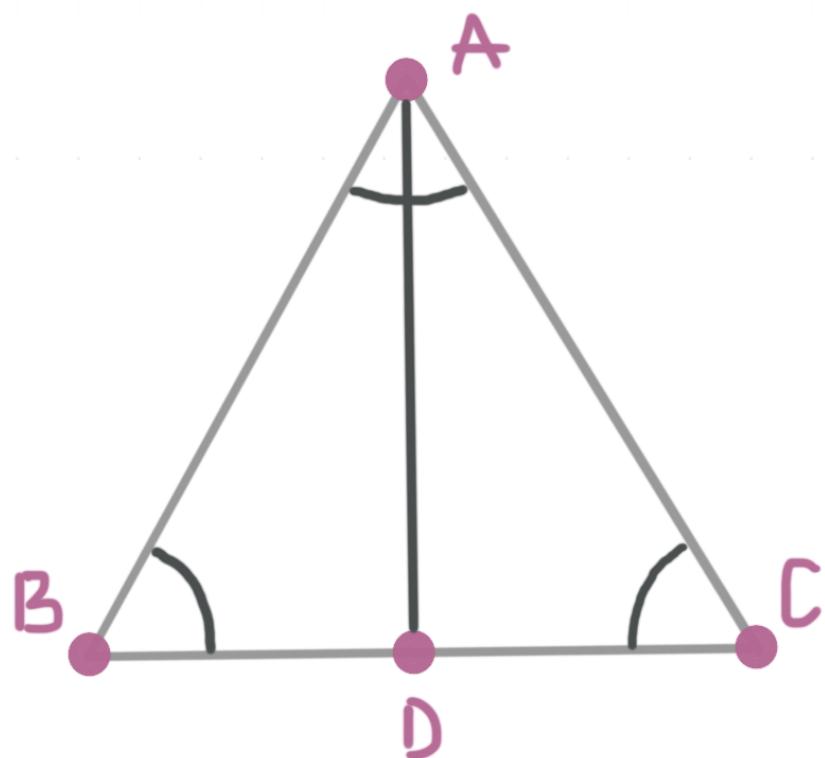
- 1. Find the value of m in the given triangle.



- 2. Find the values of x and y in the given triangle.



- 3. $\triangle BAC$ is an equilateral triangle. The perimeter is 42 cm and $m\angle ADC = 90$. Find AD .

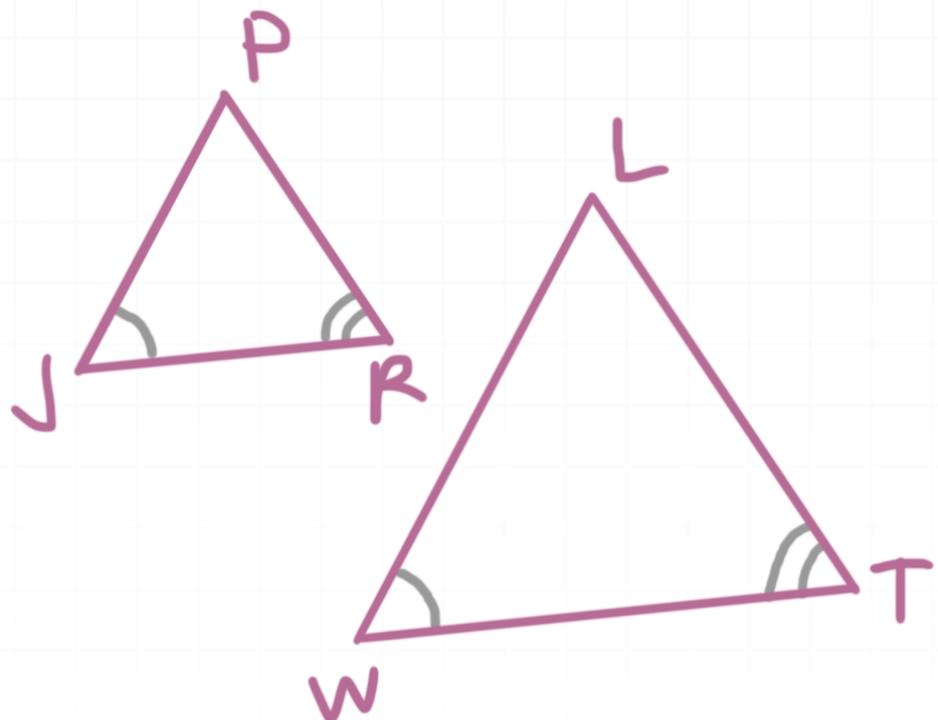


- 4. $\triangle XYZ$ is an equilateral triangle. \overline{XM} is an altitude, median, and angle bisector of the triangle. If $XM = 9$, find the perimeter of the triangle.

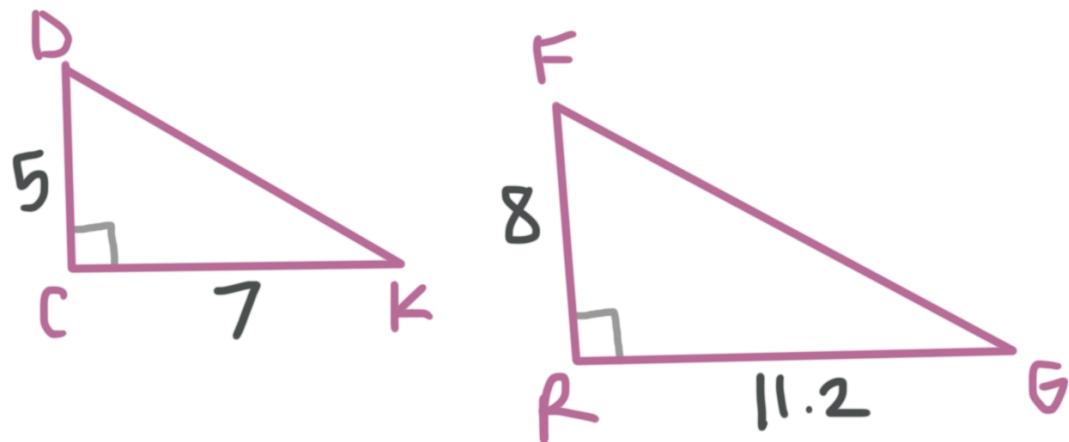


TRIANGLE SIMILARITY STATEMENTS

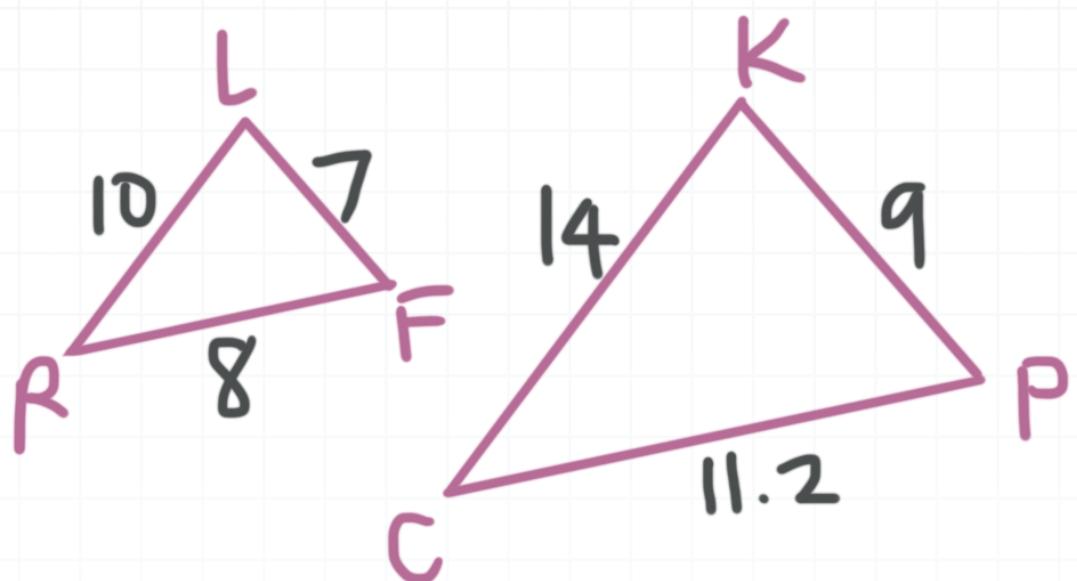
- 1. Write a similarity statement for the triangles and provide the theorem that proves they're similar.



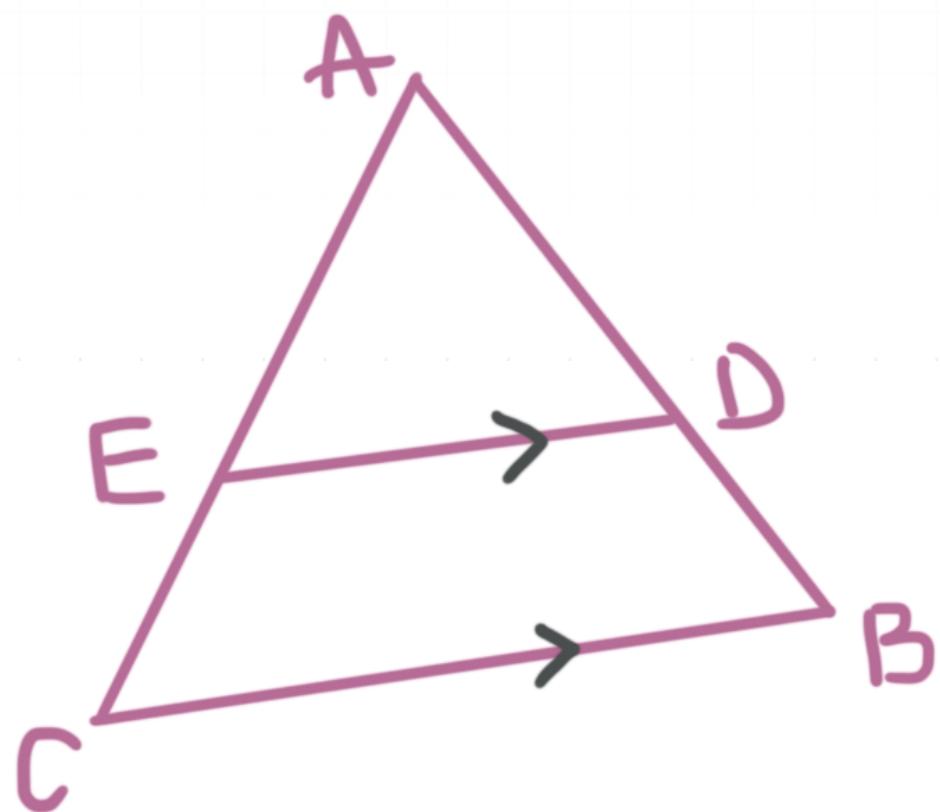
- 2. Write a similarity statement for the triangles and provide the theorem that proves they're similar.



■ 3. Is $\triangle RLF \sim \triangle CKP$? Explain.

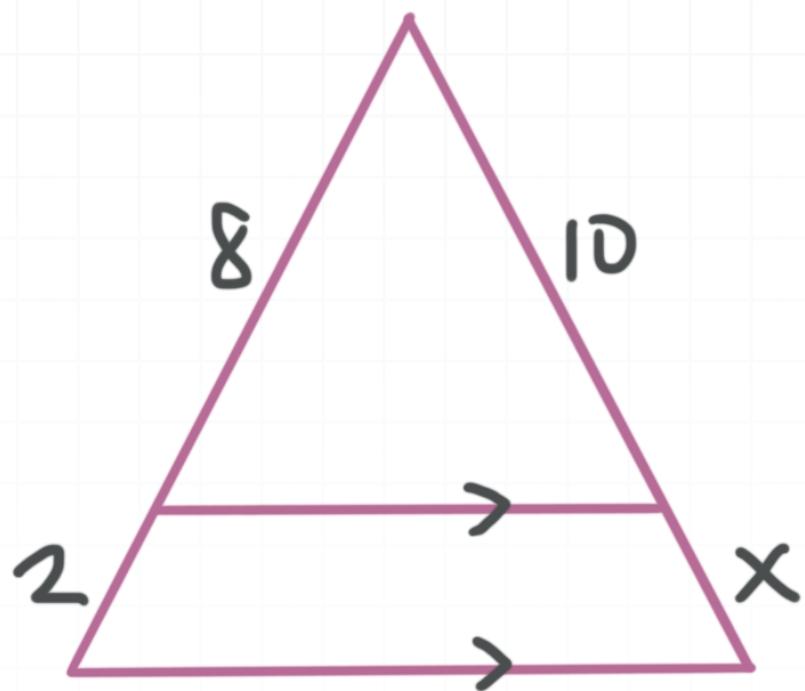


■ 4. Prove $\triangle AED \sim \triangle ACB$.

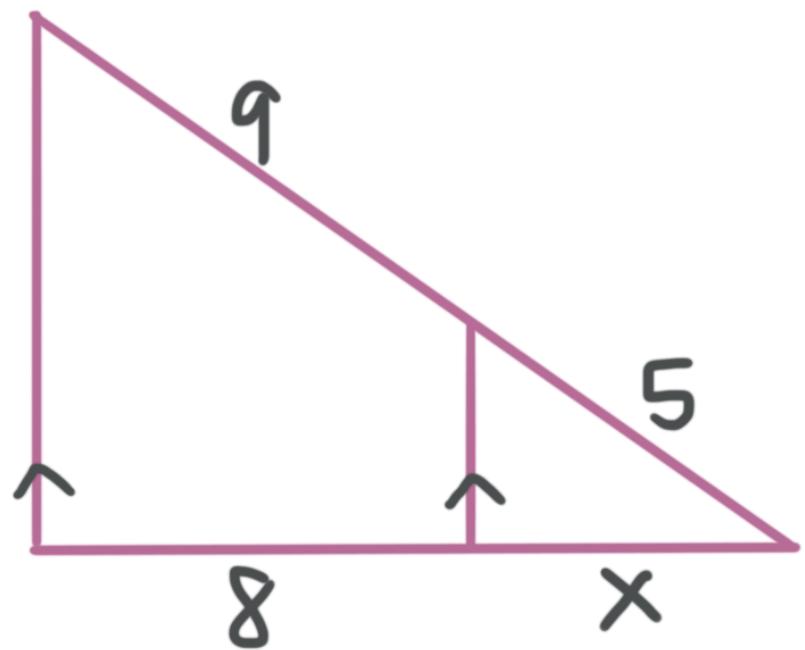


TRIANGLE SIDE-SPLITTING THEOREM

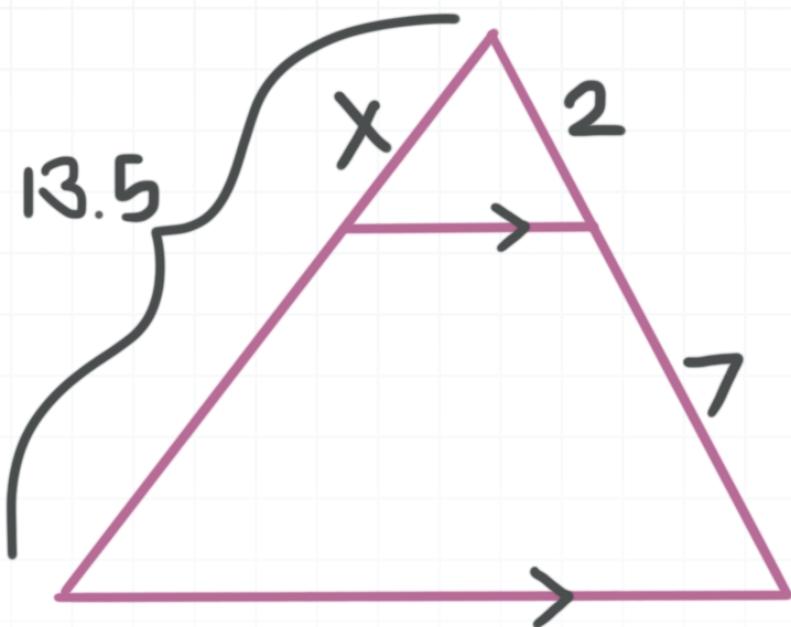
■ 1. Solve for x .



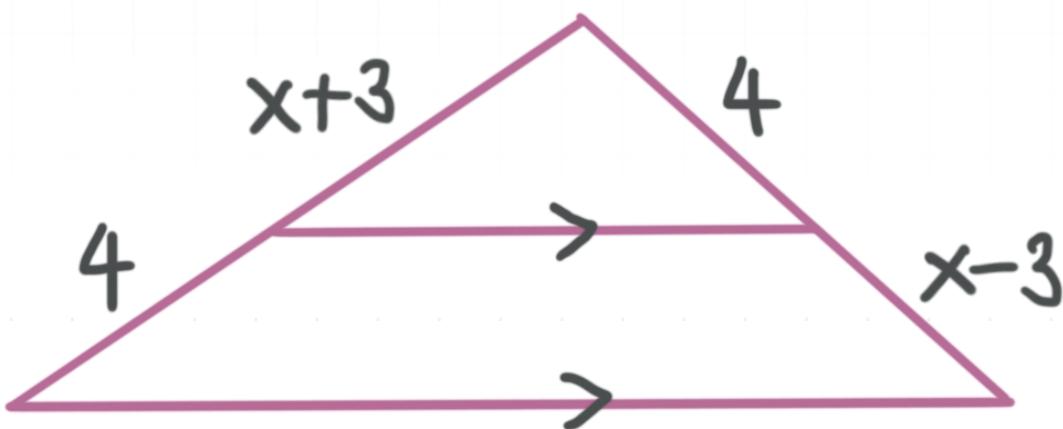
■ 2. Solve for x .



■ 3. Solve for x .

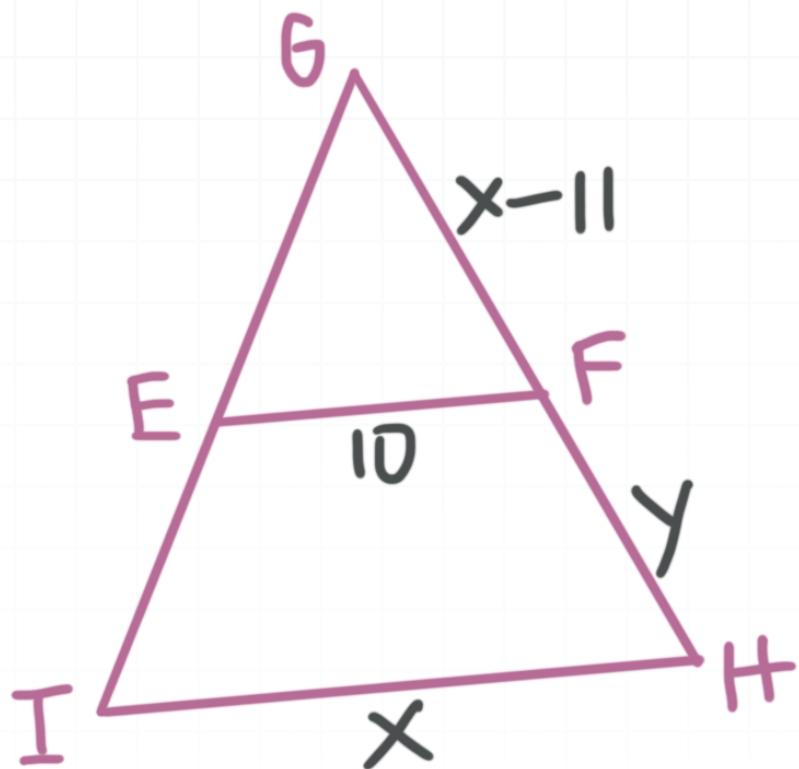


■ 4. Solve for x .

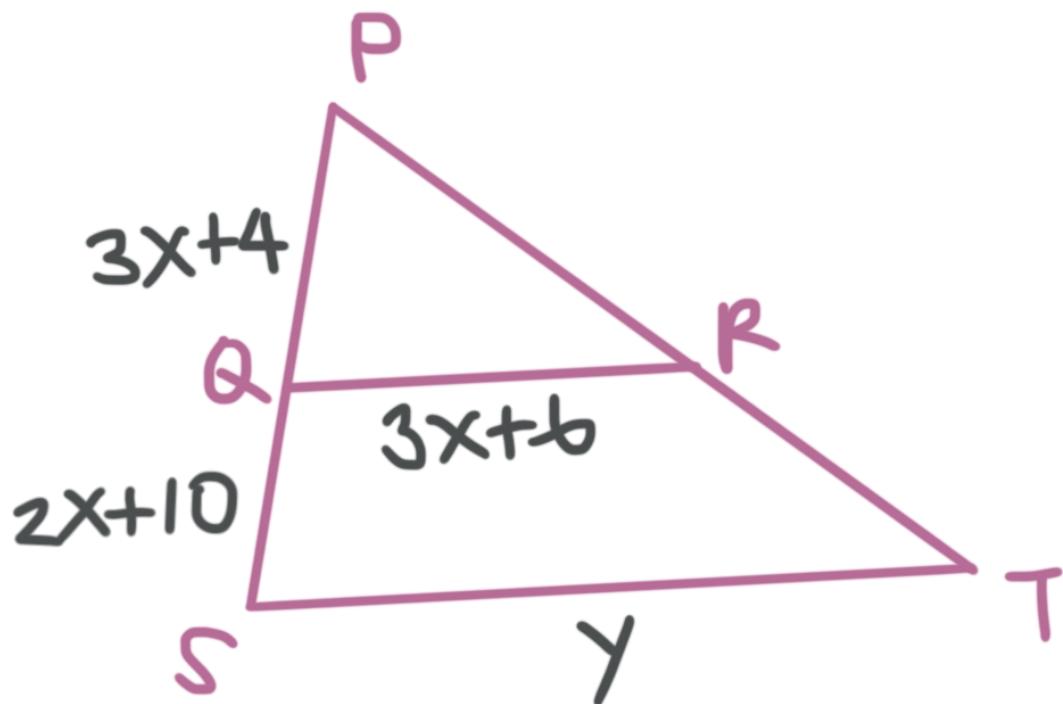


MIDSEGMENTS OF TRIANGLES

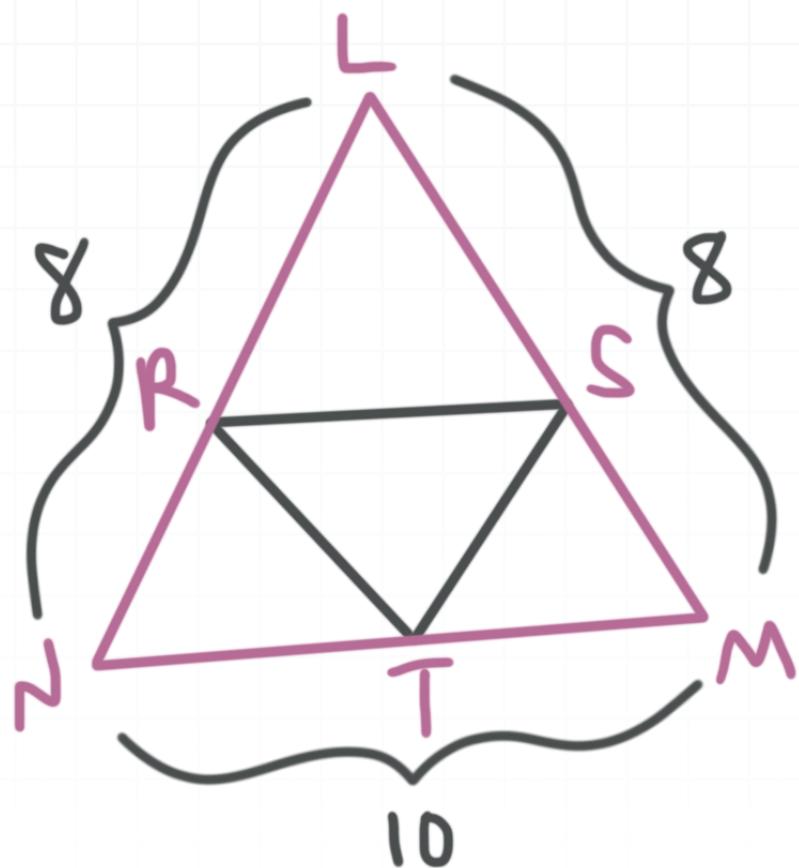
- 1. \overline{EF} is a midsegment of $\triangle IGH$. Find x and y .



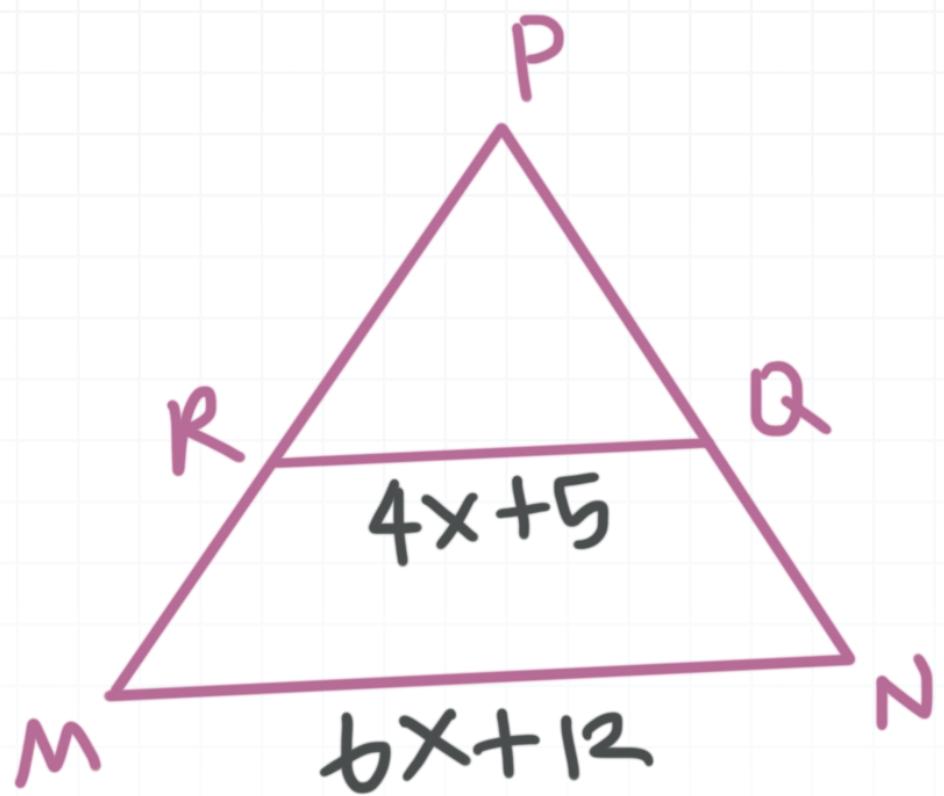
- 2. \overline{QR} is a midsegment of $\triangle SPT$. Find x and y .



- 3. \overline{RS} , \overline{ST} , and \overline{RT} are midsegments of $\triangle NLM$. Find the perimeter of quadrilateral $RTMS$.

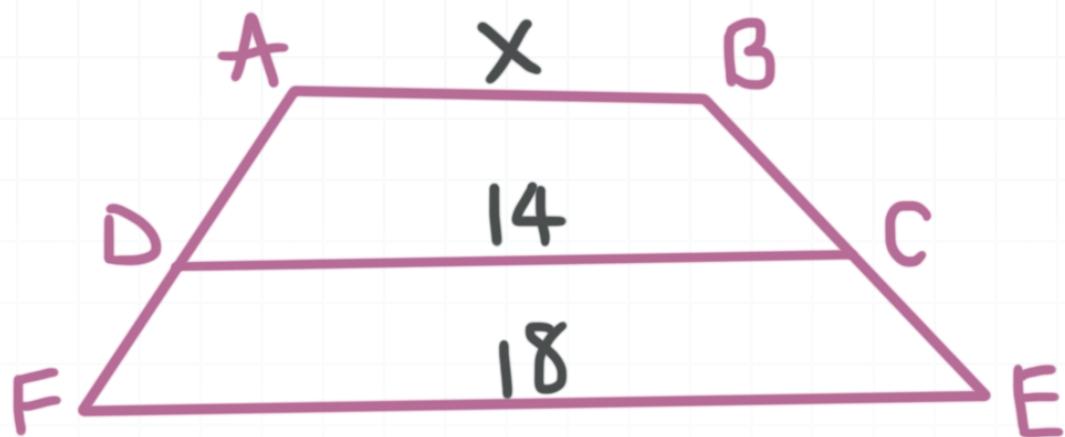


- 4. \overline{RQ} is a midsegment of $\triangle MPN$. Find x and MN .

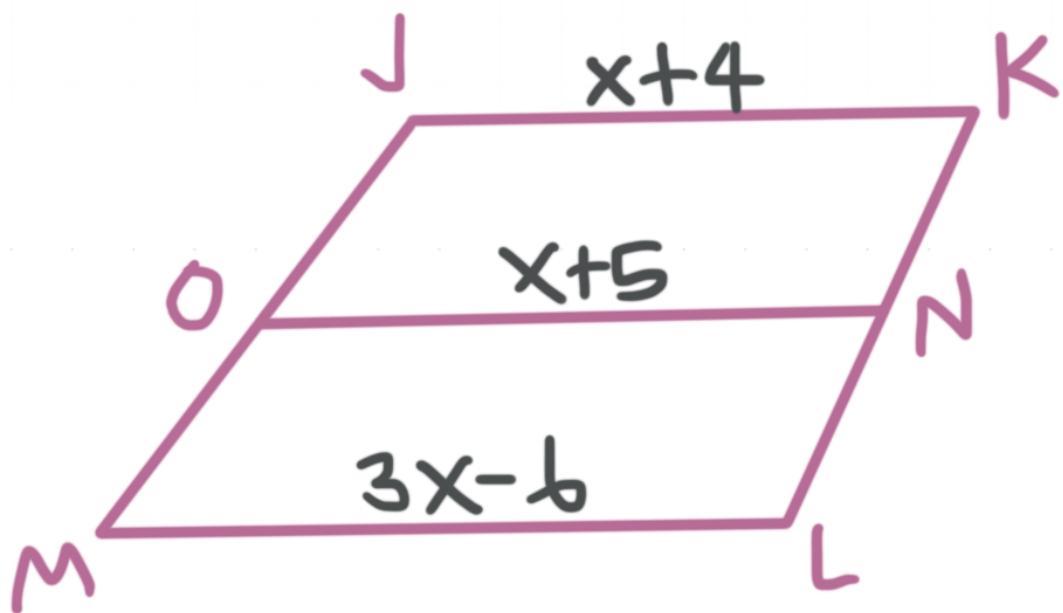


MIDSEGMENTS OF TRAPEZOIDS

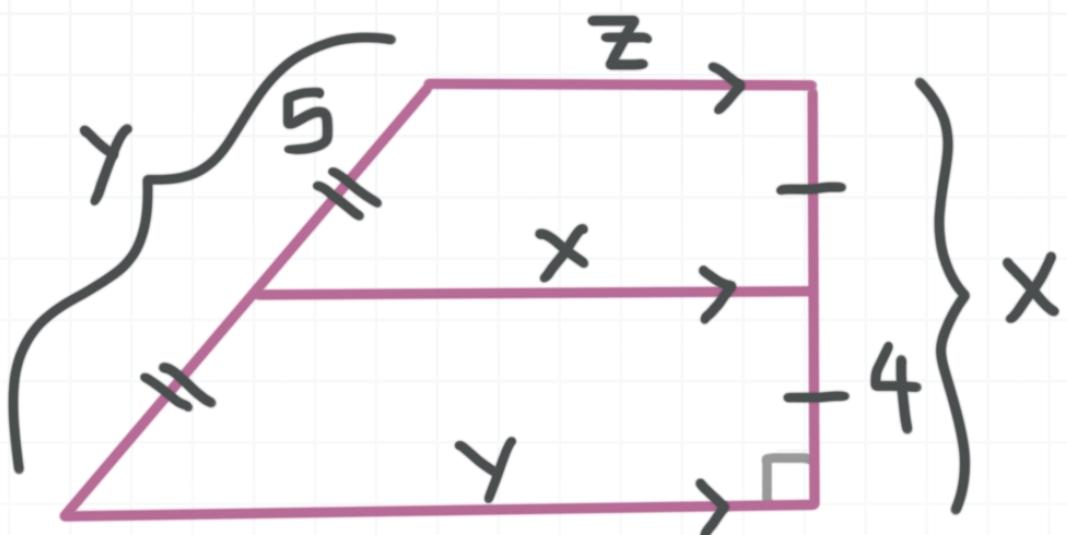
- 1. The trapezoid has midsegment \overline{DC} . Find the value of x .



- 2. \overline{ON} is a midsegment of trapezoid JKLM. Find JK , ON , and ML .



- 3. Find x , y , and z .



■ 4. Find x and y .

