

10.2 Warm Up

1. Find the midpoint of each line segment.



b)



Midpoint means middle or halfway.

2. Draw a perpendicular bisector of each line segment.



b)



Find the midpoint and draw a perpendicular line.

3. Find the height of the isosceles triangle.

$$XW = \underline{\hspace{2cm}} \text{ cm}$$

$$a^2 + b^2 = c^2$$

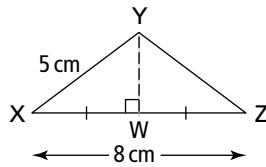
$$XW^2 + WY^2 = XY^2$$

$$\boxed{}^2 + WY^2 = 5^2$$

$$\underline{\hspace{2cm}} + WY^2 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} + WY^2 = \underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$WY^2 = \underline{\hspace{2cm}}$$



$$WY = \sqrt{\boxed{}}$$

$$WY = \underline{\hspace{2cm}}$$

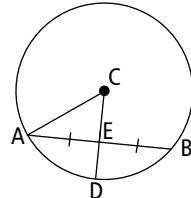
The height of the triangle is $\underline{\hspace{2cm}}$ cm.



4. Calculate the length of the line segment using the midpoints.



b)



If $AC = 10$ cm, then $AB = \underline{\hspace{2cm}}$ cm.

If $AB = 9$ cm, then $AE = \underline{\hspace{2cm}}$ cm.