Name: _____ Date: _____

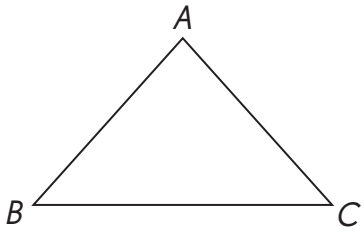
CHAPTER 6

Area of a Triangle

Worksheet 1 Base and Height of a Triangle

Name the sides of the triangle.

1.

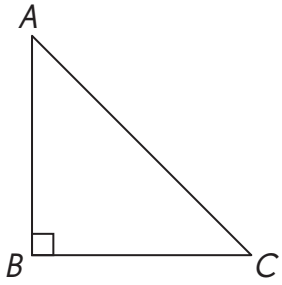


Sides: _____

_____

_____

2.

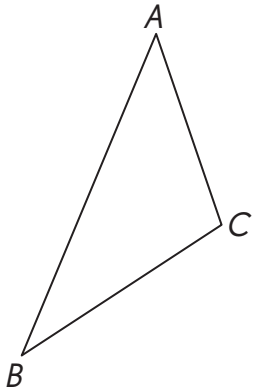


Sides: _____

_____

_____

3.



Sides: _____

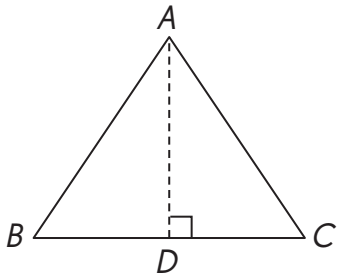
_____

_____

Name: _____ **Date:** _____

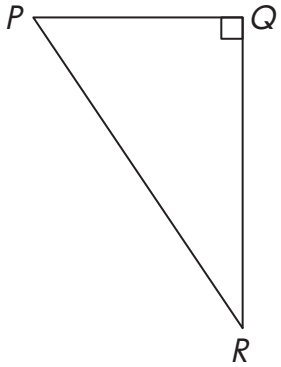
Name the height for the given base of each triangle.

Example



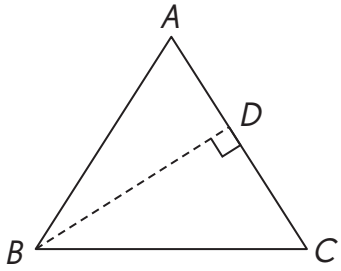
In triangle *ABC*, if the base is $\overline{BC}$, the height is $\overline{AD}$.

4.



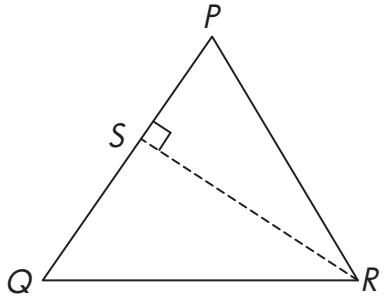
In triangle *PQR*, if the base is $\overline{PQ}$, the height is _____.

5.



In triangle *ABC*, if the base is $\overline{AC}$, the height is _____.

6.



In triangle *PQR*, if the base is $\overline{PQ}$, the height is _____.

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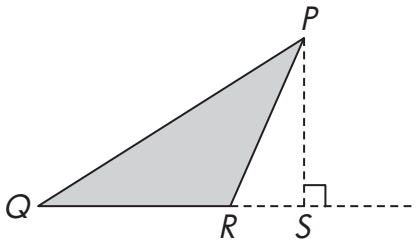
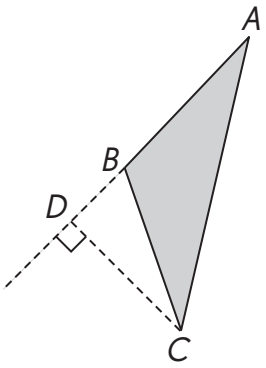
Name the height for the given base of each triangle.

Example



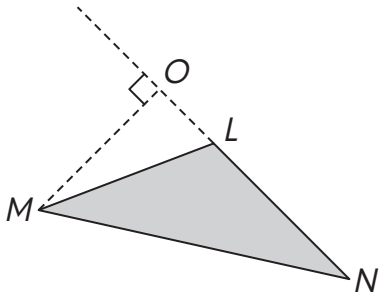
In triangle *PQR*, if the base is $\overline{QR}$, the height is $\overline{PS}$.

7.



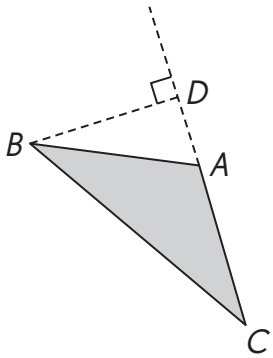
In triangle *ABC*, if the base is $\overline{AB}$, the height is _____.

8.



In triangle *LMN*, if the base is $\overline{LN}$, the height is _____.

9.

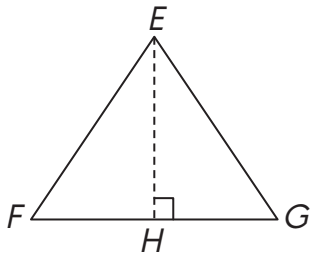


In triangle *ABC*, if the base is $\overline{AC}$, the height is _____.

Name: _____ **Date:** _____

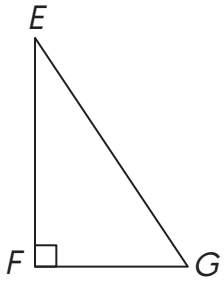
Name the base for the given height of each triangle.

Example



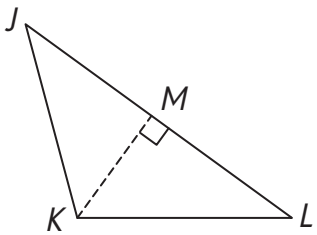
In triangle *EFG*, if the height is *EH*, the base is $\overline{FG}$.

10.



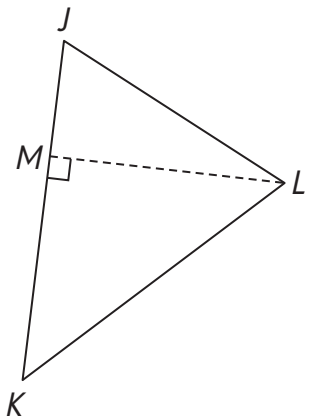
In triangle *EFG*, if the height is $\overline{EF}$, the base is _____.

11.



In triangle *JKL*, if the height is $\overline{KM}$, the base is _____.

12.

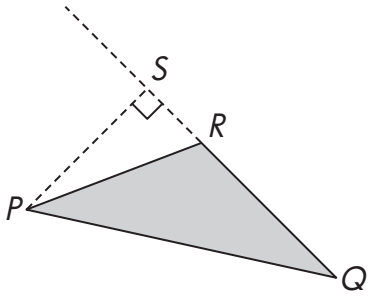


In triangle *JKL*, if the height is $\overline{LM}$, the base is _____.

Name: _____ **Date:** _____

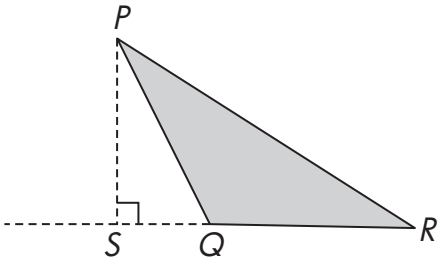
Name the base for the given height of each triangle.

Example



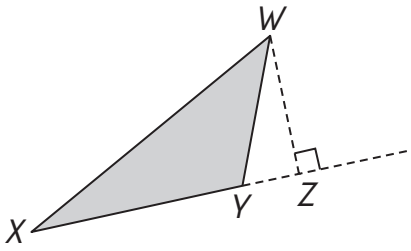
In triangle *PQR*, if the height is $\overline{PS}$, the base is $\overline{QR}$.

13.



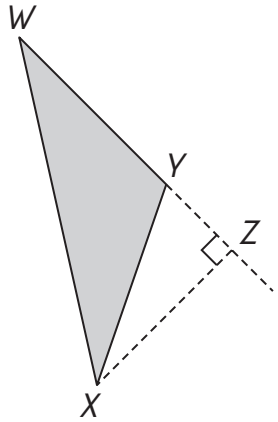
In triangle *PQR*, if the height is $\overline{PS}$, the base is _____.

14.



In triangle *WXY*, if the height is $\overline{WZ}$, the base is _____.

15.

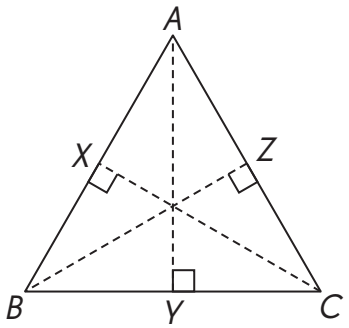


In triangle *WXY*, if the height is $\overline{XZ}$, the base is _____.

Name: _____ **Date:** _____

Complete.

16. In triangle *ABC*,



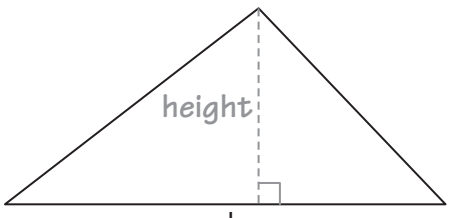
a. If the height is $\overline{AY}$, the base is _____.

b. If the height is $\overline{BZ}$, the base is _____.

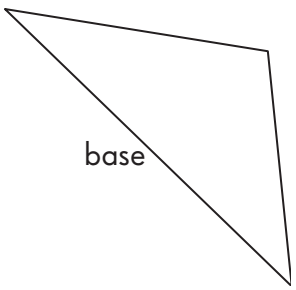
c. If the height is $\overline{CX}$, the base is _____.

For each triangle, the base is given. Use a drawing triangle to draw and label the height.

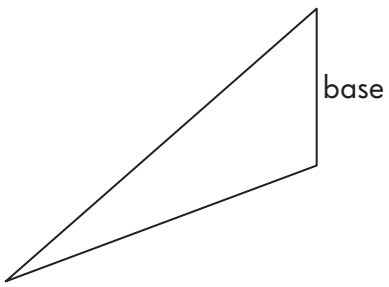
Example



17.



18.

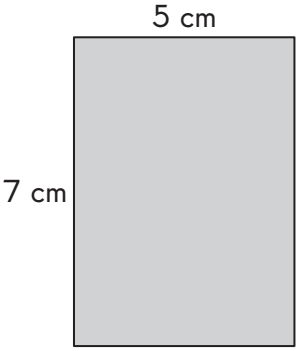


Name: _____ Date: _____

Worksheet 2 Finding the Area of a Triangle

Find the area of each rectangle.

1.



Area of a rectangle = length × width

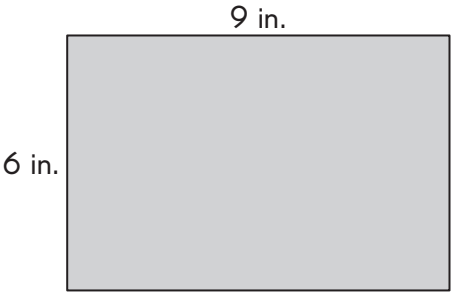
Length = _____ cm

Width = _____ cm

Area = _____ × _____

= _____ cm^2

2.



Length = _____ in.

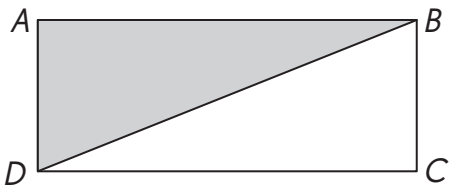
Width = _____ in.

Area = _____ × _____

= _____ $in.^2$

Name: _____ Date: _____

The area of triangle *ABD* is given. Find the area of rectangle *ABCD*.



The area of rectangle *ABCD* is double the area of triangle *ABD*.

Example

Area of the triangle = 8 cm^2

Area of the rectangle = 2 × 8

= 16 cm^2

3. Area of the triangle = 28 m^2

Area of the rectangle = _____ × _____

= _____ m^2

4. Area of the triangle = 12 ft^2

Area of the rectangle = _____ × _____

= _____ ft^2

5. Area of the triangle = 16 $in.^2$

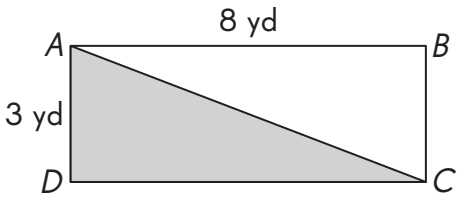
Area of the rectangle = _____ × _____

= _____ $in.^2$

Name: _____ **Date:** _____

Find the area of each shaded triangle.

6.



The area of the shaded triangle is half the area of the rectangle.

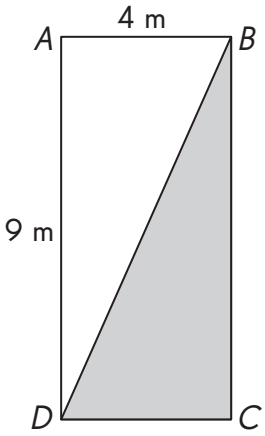
Area of rectangle $ABCD$ = _____ × _____

= _____ yd^2

Area of triangle ACD = $\frac{1}{2}$ × _____

= _____ yd^2

7.



Area of rectangle $ABCD$ = _____ × _____

= _____ m^2

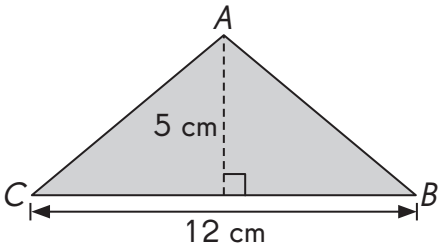
Area of triangle BCD = $\frac{1}{2}$ × _____

= _____ m^2

Name: _____ **Date:** _____

Find the area of each shaded triangle.

Example



Area of a triangle
$= \frac{1}{2} \times$ base $\times$ height

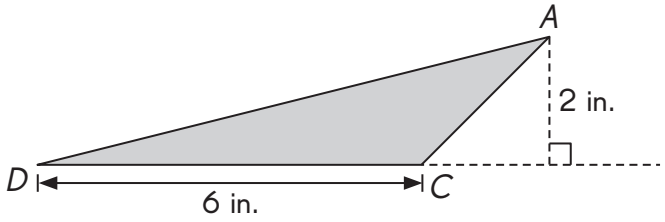
Base = 12 cm

Height = 5 cm

Area of triangle $ABC = \frac{1}{2} \times 12 \times 5$

$= 30$ cm^2

8.



Base = _____ in.

Height = _____ in.

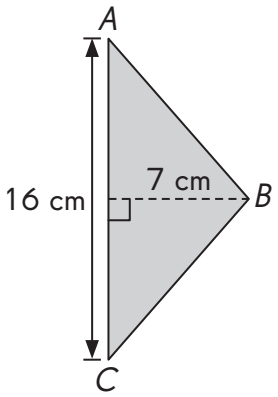
Area of triangle $ACD = \frac{1}{2} \times$ _____ $\times$ _____

= _____ in.^{2}

Name: _____ **Date:** _____

Find the area of the shaded triangle.

9.



Base = _____ cm

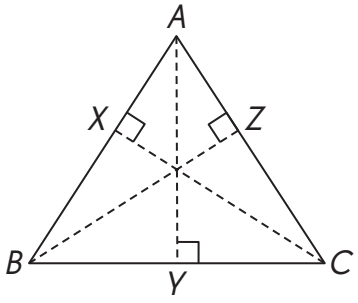
Height = _____ cm

Area of triangle $ABC = \frac{1}{2} \times$ _____ $\times$ _____

= _____ cm^2

Solve. Show your work.

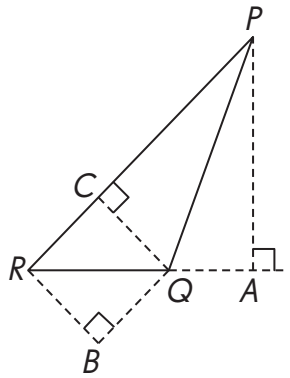
10. In the figure, $AB = 14$ inches, $AC = 16$ inches, $AY = 9$ inches, and $BZ = 10$ inches.
Find the area of triangle ABC.



Name: _____ **Date:** _____

Solve. Show your work.

11. In the figure, $PR = 24$ meters, $RQ = 16$ meters, and $RB = 12$ meters. Find the area of triangle PQR.



12. The figure is formed by a rectangle and a square. Find the area of the shaded part of the figure.