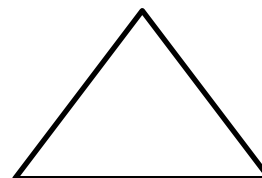
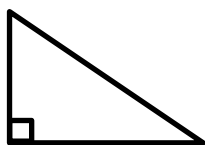


Lesson 1: The Area of Parallelograms Through Rectangle Facts

Classwork

Opening Exercise

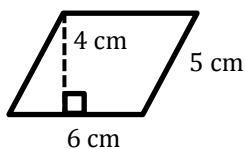
Name each shape.



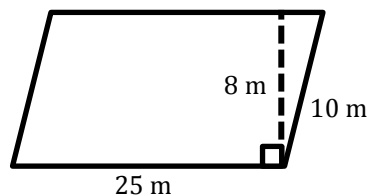
Exercises

1. Find the area of each parallelogram below. Note that the figures are not drawn to scale.

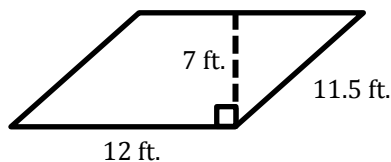
a.



b.

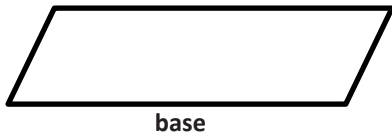


c.

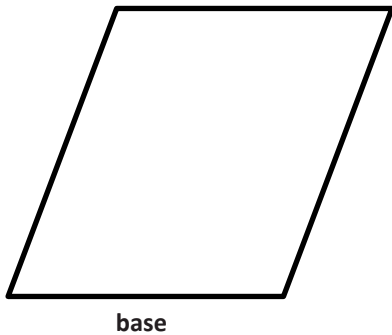


2. Draw and label the height of each parallelogram. Use the correct mathematical tool to measure (in inches) the base and height, and calculate the area of each parallelogram.

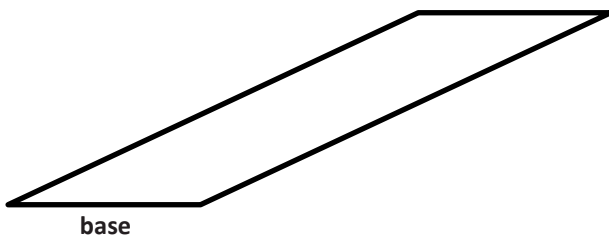
a.



b.



c.



3. If the area of a parallelogram is $\frac{35}{42} \text{ cm}^2$ and the height is $\frac{1}{7} \text{ cm}$, write an equation that relates the height, base, and area of the parallelogram. Solve the equation.

Lesson Summary

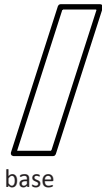
The formula to calculate the area of a parallelogram is $A = bh$, where b represents the base and h represents the height of the parallelogram.

The height of a parallelogram is the line segment perpendicular to the base. The height is usually drawn from a vertex that is opposite the base.

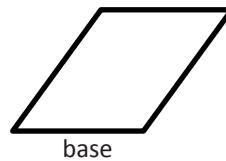
Problem Set

Draw and label the height of each parallelogram.

1.

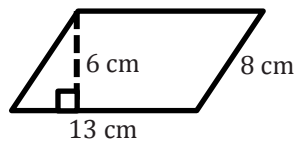


2.

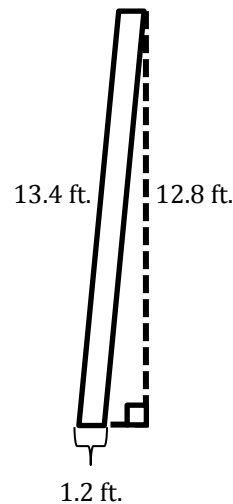


Calculate the area of each parallelogram. Note that the figures are not drawn to scale.

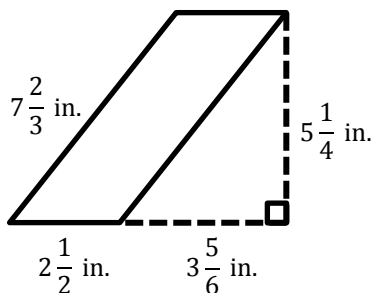
3.



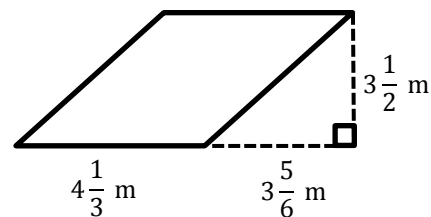
4.



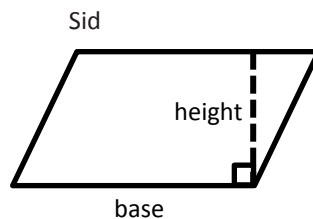
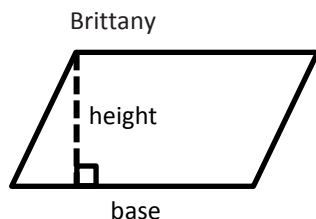
5.



6.

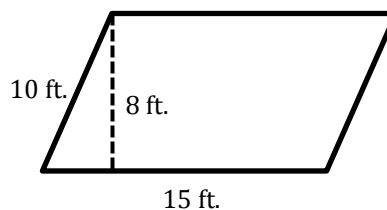
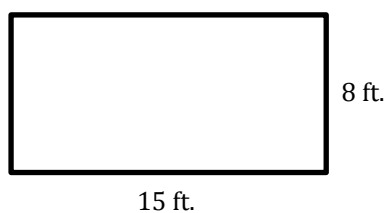


7. Brittany and Sid were both asked to draw the height of a parallelogram. Their answers are below.



Are both Brittany and Sid correct? If not, who is correct? Explain your answer.

8. Do the rectangle and parallelogram below have the same area? Explain why or why not.



9. A parallelogram has an area of 20.3 sq. cm and a base of 2.5 cm. Write an equation that relates the area to the base and height, h . Solve the equation to determine the length of the height.