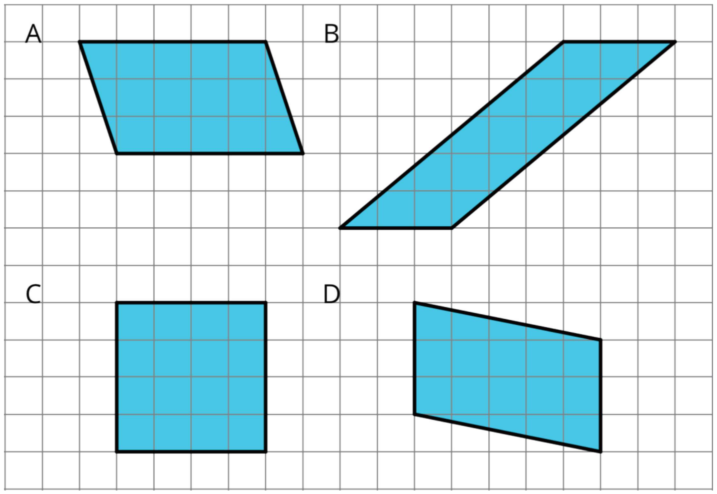
1.6.4 Practice Problems

1. Which three of these parallelograms have the same area as each other?

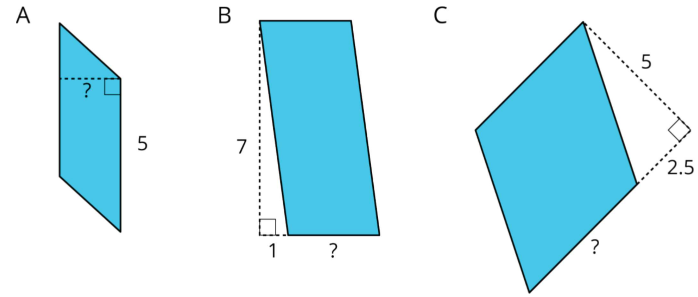


2. Which of the following pairs of base and height produces the greatest area? All measurements are in centimeters.

   A. $b = 4$, $h = 3.5$
   B. $b = 0.8$, $h = 20$
   C. $b = 6$, $h = 2.25$
   D. $b = 10$, $h = 1.4$

3. Here are the areas of three parallelograms. Use them to find the missing length (labeled with a "?") on each parallelogram.

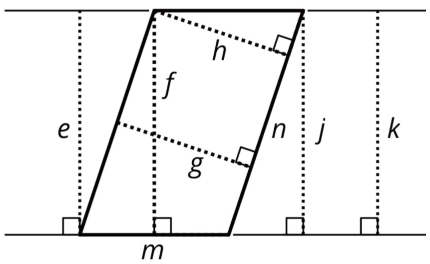
   A: 10 square units B: 21 square units C: 25 square un



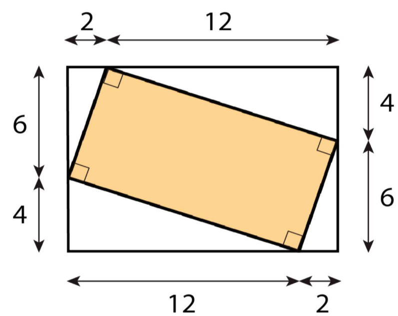
4. The Dockland Building in Hamburg, Germany is shaped like a parallelogram.

If the length of the building is 86 meters and its height is 55 meters, what is the area of this face of the building?

5. Select **all** segments that could represent a corresponding height if the side m is the base.



6. Find the area of the shaded region. All measurements are in centimeters. Show your reasoning.

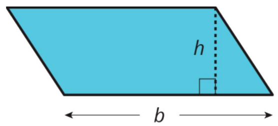


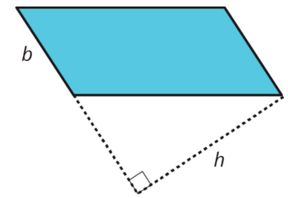
Unit 1, Lesson 7: From Parallelograms to Triangles

Let's compare parallelograms and triangles.

1.7.1 Warm-Up: Same Parallelograms, Different Bases

Here are two copies of a parallelogram. Each copy has one side labeled as the base b and a segment drawn for its corresponding height and labeled h.





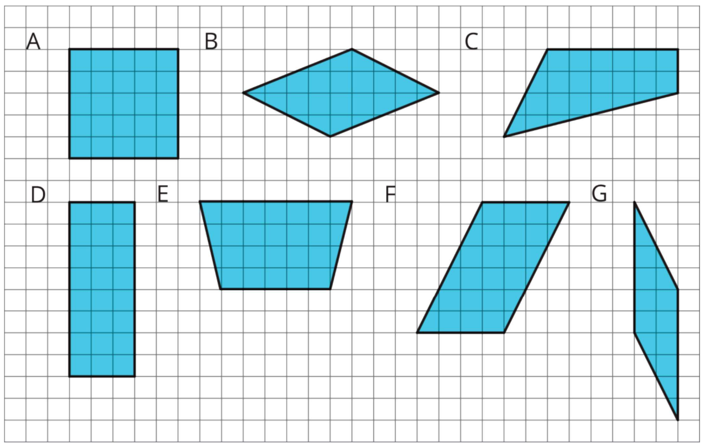
1. The base of the parallelogram on the left is 2.4 centimeters; its corresponding height is 1 centimeter. Find its area in square centimeters.

2. The height of the parallelogram on the right is 2 centimeters. How long is the base of that parallelogram? Explain your reasoning.

1.7.2a Exploration Activity: A Tale of Two Triangles (Part 1)

Two polygons are identical if they match up exactly when placed one on top of the other.

1. Draw *one* line to decompose each of the following polygons into two identical triangles, if possible. Use a straightedge to draw your line.



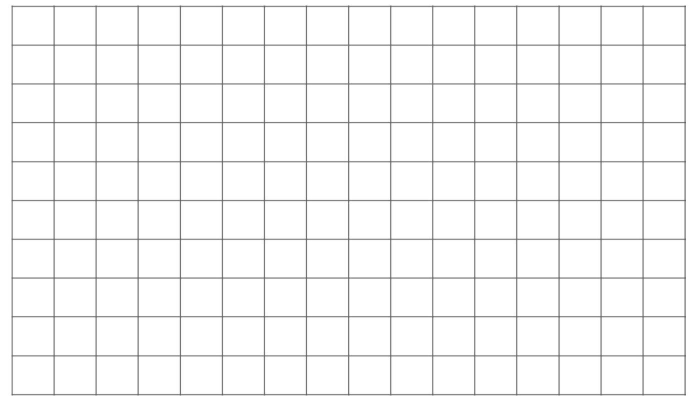
2. Which quadrilaterals can be decomposed into two identical triangles?

   Pause here for a small-group discussion.

3. Study the quadrilaterals that can, in fact, be decomposed into two identical triangles. What do you notice about them? Write a couple of observations about what these quadrilaterals have in common.

1.7.2b Exploration Extension: Are you ready for more?

On the grid, draw some other types of quadrilaterals that are not already shown. Try to decompose them into two identical triangles. Can you do it?



Come up with a rule about what must be true about a quadrilateral for it to be decomposed into two identical triangles.

1.7.3 Exploration Activity: A Tale of Two Triangles (Part 2)

Your teacher will give your group several pairs of triangles. Each group member should take 1–2 pairs.

1. Which pair(s) of triangles do you have?

   Can each pair be composed into a rectangle? A parallelog

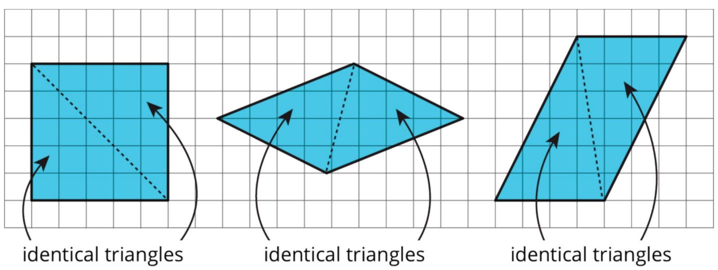
2. Discuss with your group your responses to the first question. Then, complete each of the following statements with *all*, *some*, or *none*. Sketch 1–2 examples to illustrate each completed statement

   a. ________________ of these pairs of identical triangles can be composed into a *rectangle*.

   b. ________________ of these pairs of identical triangles can be composed into a *parallelogram*.

Lesson 7 Summary

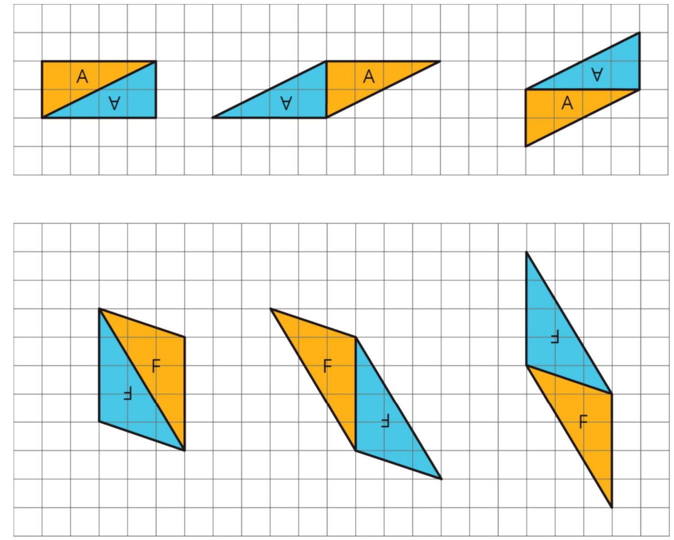
A parallelogram can always be decomposed into two identical triangles by a segment that connects opposite vertices.



Going the other way around, two identical copies of a triangle can always be arranged to form a parallelogram, regardless of the type of triangle being used

To produce a parallelogram, we can join a triangle and its copy along any of the three sides, so the same pair of triangles can make different parallelogram

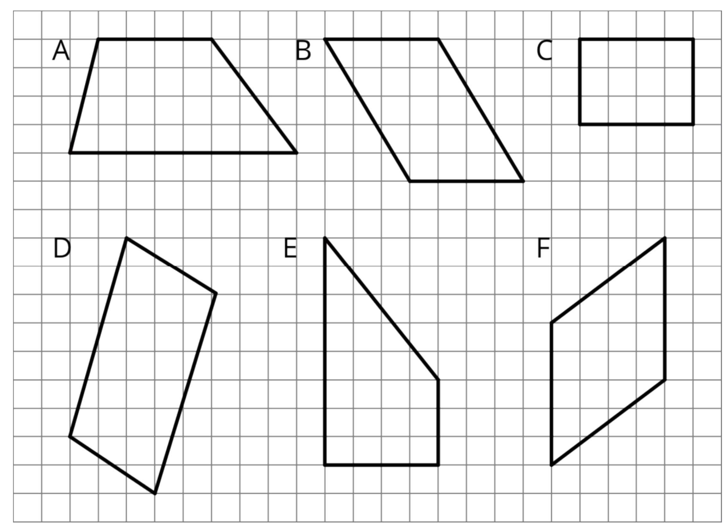
Here are examples of how two copies of both Triangle A and Triangle F can be composed into three different parallelograms.



This special relationship between triangles and parallelograms can help us reason about the area of any triangle.

1.7.4 Cool-Down

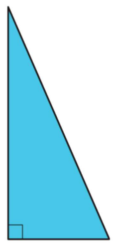
1. Here are some quadrilaterals.



a. Circle all quadrilaterals that you think can be decomposed into two identical triangles using only one line.

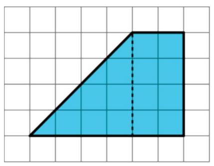
b. What characteristics do the quadrilaterals that you circled have in common

2. Here is a right triangle. Show or briefly describe how two copies of it can be composed into a parallelogram.



1.7.5 Practice Problems

1. To decompose a quadrilateral into two identical shape Clare drew a dashed line as shown in the diagram.



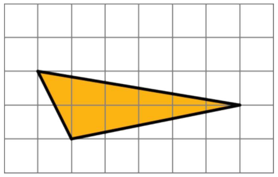
a. She said the that two resulting shapes have the same area. Do you agree? Explain your reasoning.

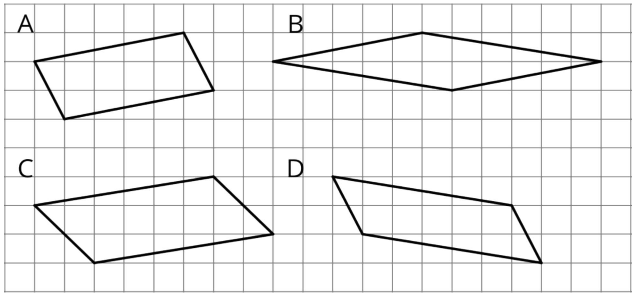
b. Did Clare partition the figure into two identical shapes? Explain your reasoning.

2. Triangle R is a right triangle. Can we use two copies of Triangle R to compose a parallelogram that is not a squa

If so, explain how or sketch a solution. If not, explain why not

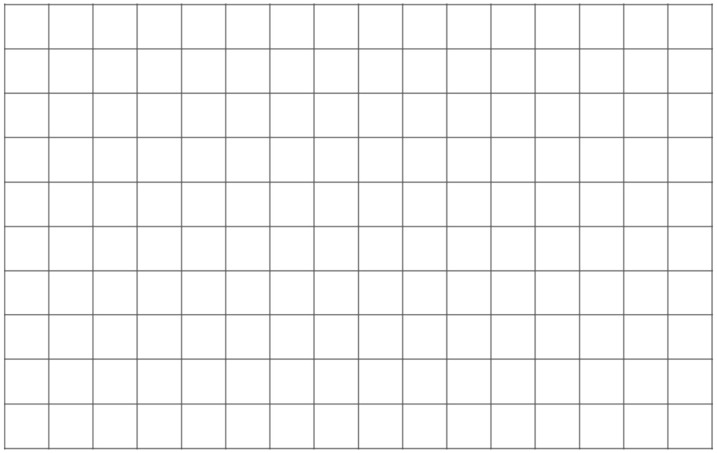
3. Two copies of this triangle are used to compose a parallelogram. Which parallelogram *cannot* be a result of the composition? If you get stuck, consider using tr paper.





4.

a. On the grid, draw at least three different quadrilaterals that can each be decomposed into two identical triangles with a single cut (show the cut line). One or more of the quadrilaterals should have non-right angles.



b. Identify the type of each quadrilateral.

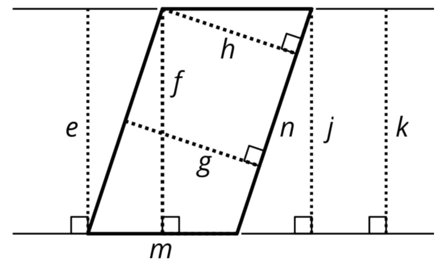
5.

a. A parallelogram has a base of 9 units and a corresponding height of $\frac{2}{3}$ units. What is its are

b. A parallelogram has a base of 9 units and an area of 12 square units. What is the corresponding height for that base?

c. A parallelogram has an area of 7 square units. If the height that corresponds to a base is $\frac{1}{4}$ unit, what is the base?

6. Select **all** segments that could represent a corresponding height if the side n is the base.

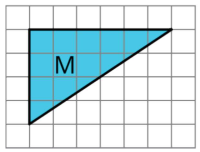


Unit 1, Lesson 8: Area of Triangles

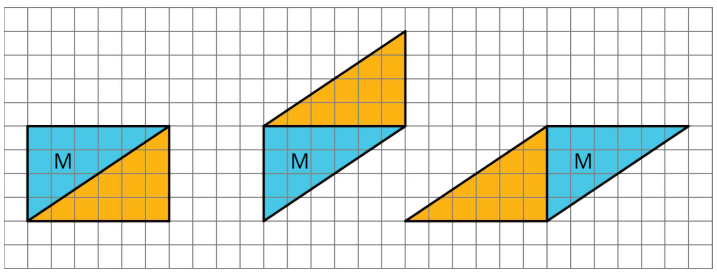
Let's use what we know about parallelograms to find the area of triangles.

1.8.1 Warm-Up: Composing Parallelograms

Here is Triangle M.



Han made a copy of Triangle M and composed three different parallelograms using the original M and the copy, as shown here.

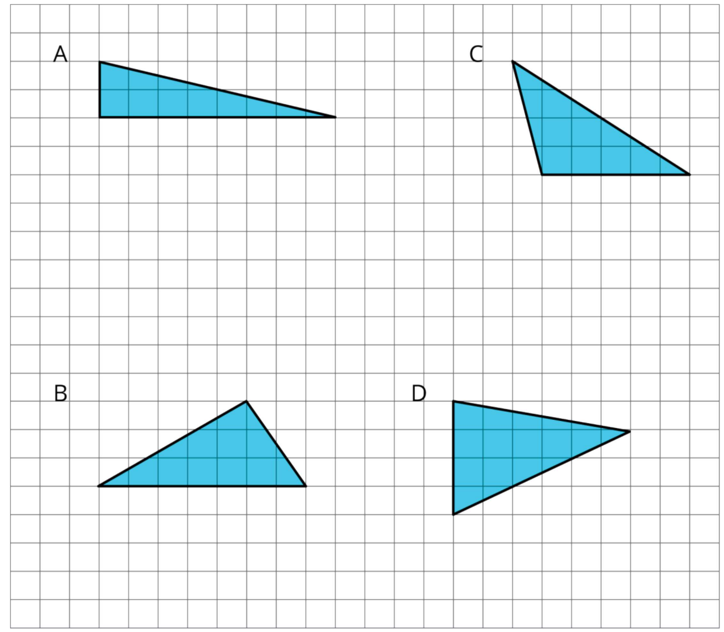


1. For each parallelogram Han composed, identify a base and a corresponding height, and write the measurements on the drawing.

2. Find the area of each parallelogram Han composed. Show your reasoning.

1.8.2 Exploration Activity: More Triangles

Find the areas of at least two of the triangles below. Show your reasoning.

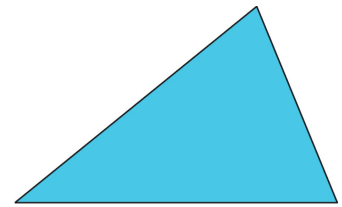


1.8.3a Exploration Activity: Decomposing a Parallelogram

1. Your teacher will give you two copies of a parallelogram. Glue or tape *one* copy of your parallelogram here and find its area. Show your reasoning.
2. Decompose the second copy of your parallelogram by cutting along the dotted lines. Take *only* the small triangle and the trapezoid, and rearrange these two pieces into a different parallelogram. Glue or tape the newly composed parallelogram on your pap
3. Find the area of the new parallelogram you composed. Show your reasoning.
4. What do you notice about the relationship between the area of this new parallelogram and the original one?
5. How do you think the area of the large triangle compares to that of the new parallelogram: Is it larger, the same, or smaller? Why is that?
6. Glue or tape the remaining large triangle below. Use any part of the work above to help you find its area. Show your reasoning.

1.8.3b Exploration Extension: Are you ready for more?

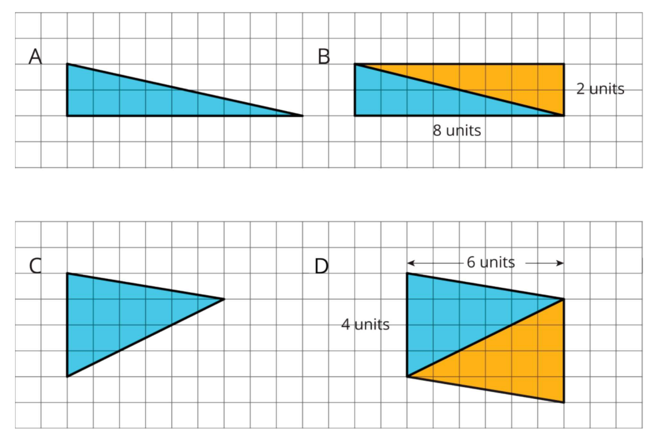
Can you decompose this triangle and rearrange its parts to form a rectangle? Describe how it could be done



Lesson 8 Summary

We can reason about the area of a triangle by using what we know about parallelograms. Here are three general ways to do this:

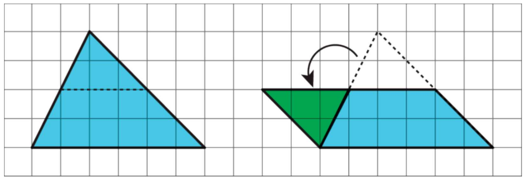
- Make a copy of the triangle and join the original and the copy along an edge to create a parallelogram. Because the two triangles have the same area, one copy of the triangle has half the area of that parallelogram.



The area of Parallelogram B is 16 square units because the base is 8 units and the height 2 units. The area of Triangle A is half of that, which is 8 square units. The area of

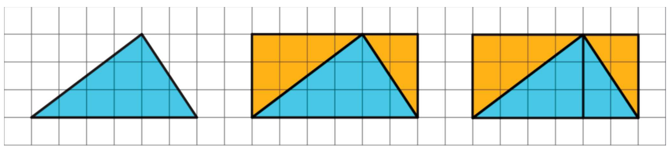
Parallelogram D is 24 square units because the base is 4 units and the height 6 units. The area of Triangle C is half of that, which is 12 square units

- Decompose the triangle into smaller pieces and compose them into a parallelog



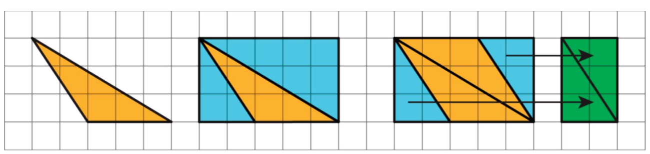
In the new parallelogram, $b = 6$, $h = 2$, and $6 \cdot 2 = 12$, so its area is 12 square units. Because the original triangle and the parallelogram are composed of the same parts, the area of the original triangle is also 12 square units

- Draw a rectangle around the triangle. Sometimes the triangle has half of the area of the recta



The large rectangle can be decomposed into smaller rectangles. The one on the left has area $4 \cdot 3$ or 12 squa units; the one on the right has area $2 \cdot 3$ or 6 square The large triangle is also decomposed into two right triangles. Each of the right triangles is half of a smaller rectangle, so their areas are 6 square units and 3 square units. The large triangle has area 9 square units.

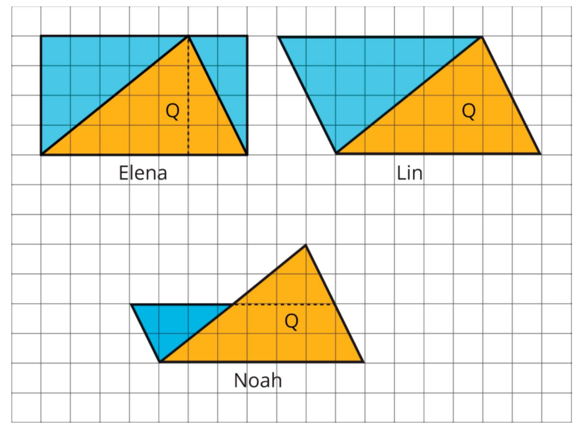
Sometimes, the triangle is half of what is left of th rectangle after removing two copies of the smaller right triangles.



The right triangles being removed can be composed into a small rectangle with area $(2 \cdot 3)$ square units. What is left is a parallelogram with area $5 \cdot 3 - 2 \cdot 3$, which equals $15 - 6$ or 9 square units. Notice that we can compose the same parallelogram with two copies of the original triangle! The original triangle is half of the parallelogram, so its area is $\frac{1}{2} \cdot 9$ or 4.5 square units.

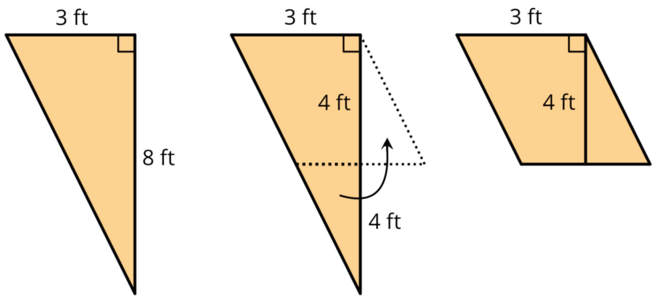
1.8.4 Cool-Down

Elena, Lin, and Noah all found the area of Triangle Q to be 1 square units but reasoned about it differently, as shown in the diagrams. Explain *at least one* student's way of thinking and why his or her answer is correct.

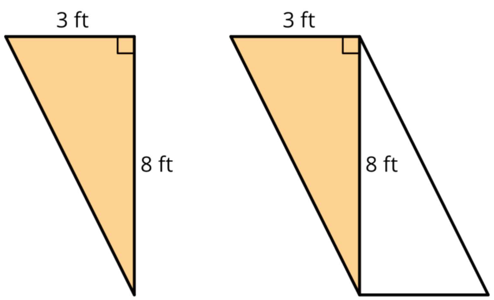


1.8.5 Practice Problems

1. To find the area of this right triangle, Diego and Jada used different strategies. Diego drew a line through the midpoints of the two longer sides, which decomposes the triangle into a trapezoid and a smaller triangle. He then rearranged the two shapes into a parallelogram.



Jada made a copy of the triangle, rotated it, and lined it up against one side of the original triangle so that the two triangles make a parallelogram.

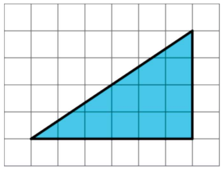


a. Explain how Diego might use his parallelogram to find the area of the triangle.

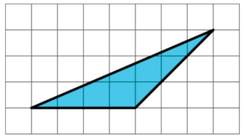
b. Explain how Jada might use her parallelogram to find the area of the triangle.

2. Find the area of the triangle. Explain or show your reasoning.

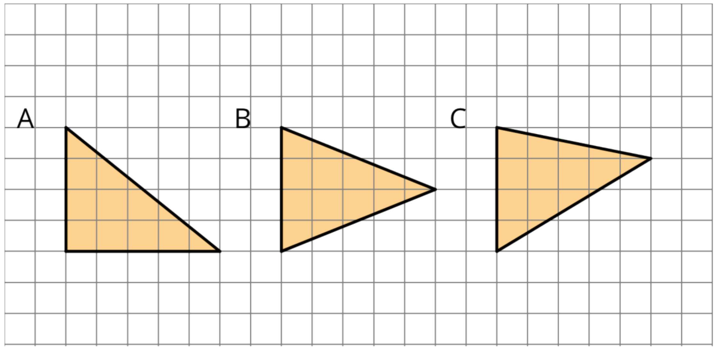
a.



b.

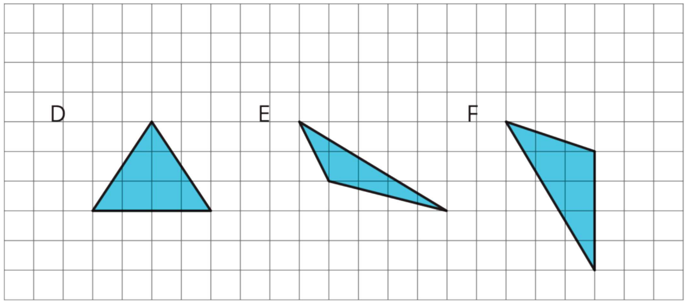


3. Which of the three triangles has the greatest area? Show your reasonin



If you get stuck, use what you know about the area of parallelograms to help you.

4. Draw an identical copy of each triangle such that the two copies together form a parallelogram. If you get stuck, consider using tracing paper.



5.

a. A parallelogram has a base of 3.5 units and corresponding height of 2 units. What is its area?

b. A parallelogram has a base of 3 units and an area of 1.8 square units. What is the corresponding height for that base?

c. A parallelogram has an area of 20.4 square units. If the height that corresponds to a base is 4 units, what is the base?

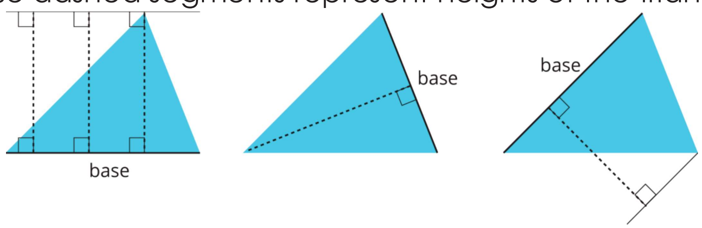
Unit 1, Lesson 9: Formula for the Area of a Triangle

Let's write and use a formula to find the area of a triangle.

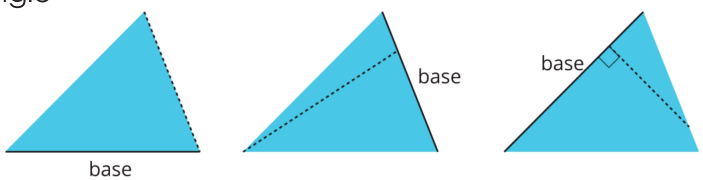
1.9.1 Warm-Up: Bases and Heights of a Triangle

Study the examples and non-examples of **bases** and **heights** in a triangle. Answer the questions that follow.

- These dashed segments represent heights of the triangle.



- These dashed segments do *not* represent ights of the triangle

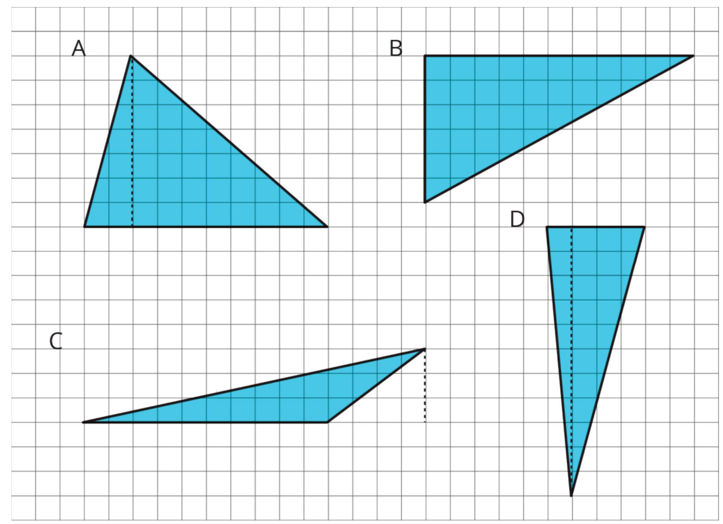


Select **all** the statements that are true about bases and heights in a triangle.

- ☐ Any side of a triangle can be a base.
- ☐ There is only one possible height.
- ☐ A height is always one of the sides of a triangle.
- ☐ A height that corresponds to a base must be drawn at an acute angle to the base.
- ☐ A height that corresponds to a base must be drawn at a right angle to the base.
- ☐ Once we choose a base, there is only one segment that represents the corresponding height.
- ☐ A segment representing a height must go through a vertex.

1.9.2 Exploration Activity: Finding the Formula for Area of a Triangle

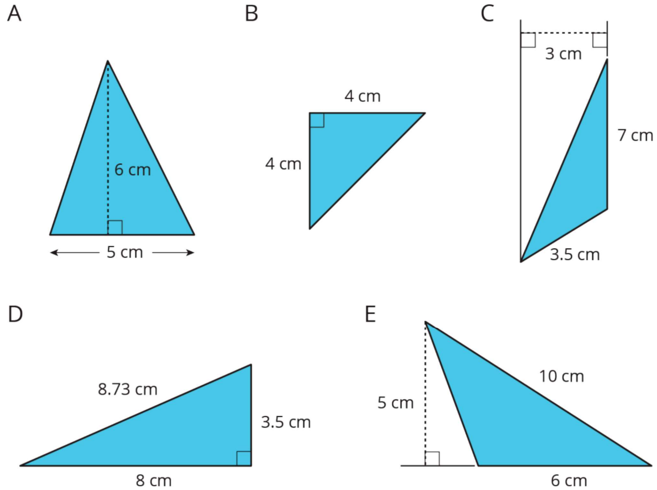
- For each triangle, label a side that can be used as the base and a segment showing its corresponding height.
- Record the measurements for the base and height in the table, and find the area of the triangle. (The side length of each square on the grid is 1 unit.)
- In the last row, write an expression for the area of any triangle using b and h.



triangle	base (units)	height (units)	area (square units)
A			
B			
C			
D			
any triangle	b	h	

1.9.3 Exploration Activity: Applying the Formula for Area of Triangles

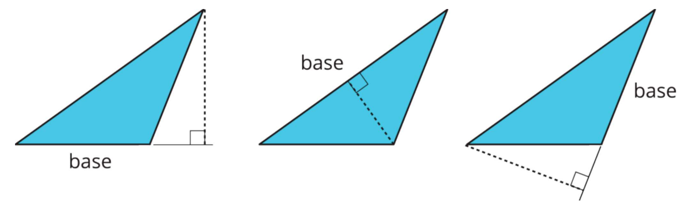
For each triangle, circle a base measurement that you use to find the area of the triangle. Then, find the area of any *three* triangles. Show your reasoning.



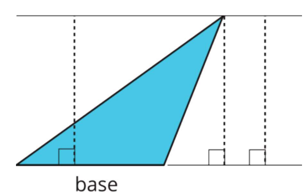
Lesson 9 Summary

- We can choose any of the three sides of a triangle to call the **base**. The term "base" refers to both the side and its length (the measurement).
- The corresponding **height** is the length of a perpendicular segment from the base to the vertex opposite of it. The **opposite vertex** is the vertex that is *not* an endpoint of the bas

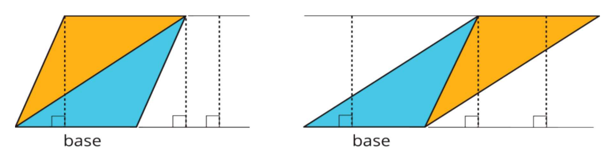
Here are three pairs of bases and heights for the same triangle. The dashed segments in the diagrams represent heights.



A segment showing a height must be drawn at a right angle to the base, but it can be drawn in more than one place. It does not have to go through the opposite vertex, as long as it connects the base and a line that is parallel to the base and goes through the opposite vertex, as shown



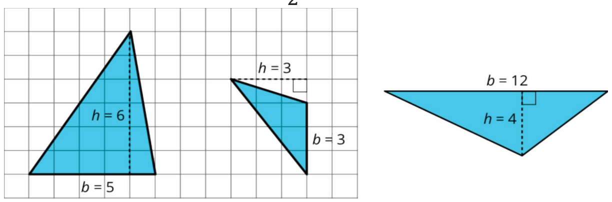
The base-height pairs in a triangle are closely related to those in a parallelogram. Recall that two copies of a triangle can be composed into one or more parallelograms. Each parallelogram shares at least one base with the triangle.



For any base that they share, the corresponding height is also shared, as shown by the dashed segments.

We can use the base-height measurements and our knowledge of parallelograms to find the area of any triangle.

- The formula for the area of a parallelogram with base b an height h is $b \cdot h$.
- A triangle takes up half of the area of a parallelogram with the same base and height. We can therefore express the area A of a triangle as: $A = \frac{1}{2} \cdot b \cdot h$

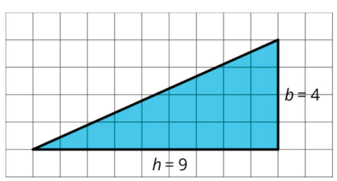


- The area of Triangle A is 15 square units because $\frac{1}{2} \cdot 5 \cdot 6 = 15$.
- The area of Triangle B is 4.5 square units because $\frac{1}{2} \cdot 3 \cdot 3 = 4.5$.
- The area of Triangle C is 24 square units because $\frac{1}{2} \cdot 12 \cdot 4 = 24$.

In each case, one side of the triangle is the base but neither of the other sides is the height. This is because the angle between them is not a right ang

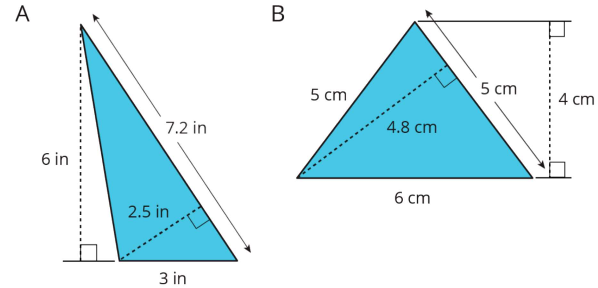
In right triangles, however, the two sides that are perpendicular can be a base and a height.

The area of this triangle is 18 square units whether we use 4 units or 9 units for the base.



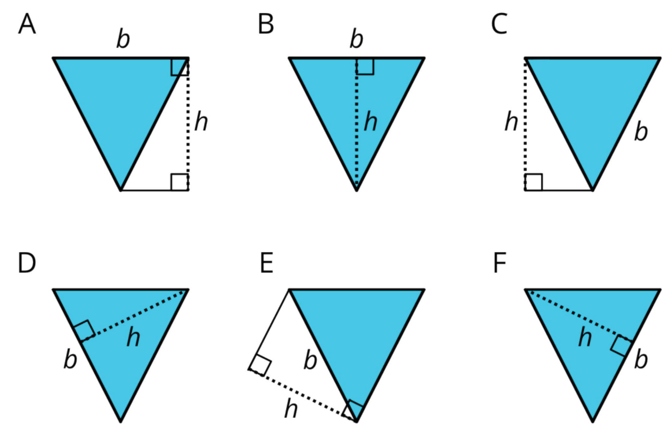
1.9.4 Cool-Down

For each triangle, identify a base and a corresponding height. Use them to find the area. Show your reasoning.

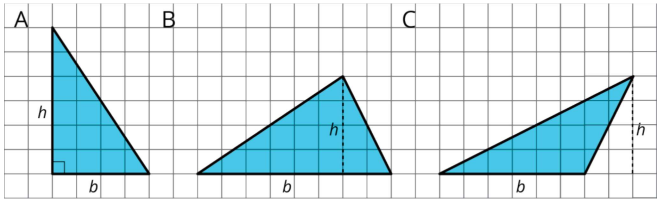


1.9.5 Practice Problems

1. Select **all** drawings in which a corresponding height h for a given base b is correctly identi



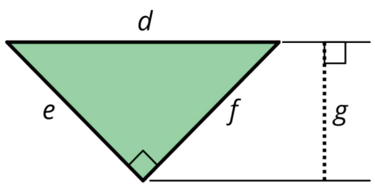
2. For each triangle, a base and its corresponding height are labeled.



a. Find the area of each triangle.

b. How is the area related to the base and its corresponding height?

3. Here is a right triangle. Name a corresponding height for each base.

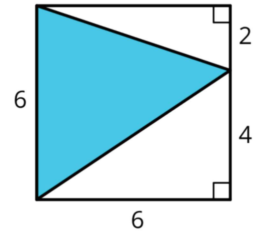


a. Side d

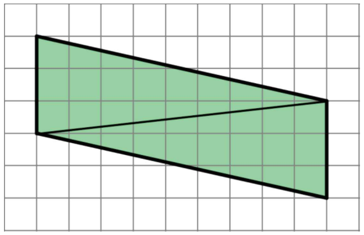
b. Side e

c. Side f

4. Find the area of the shaded triangle. Show your reasoning.

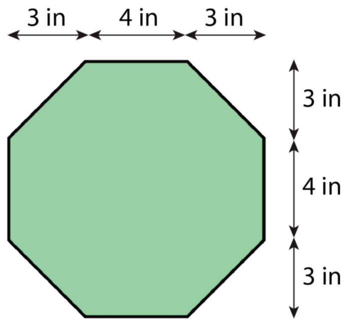


5. Andre drew a line connecting two opposite corners of a parallelogram. Select **all** true statements about the triangles created by the line Andre drew.



- ☐ Each triangle has two sides that are 3 units long.
- ☐ Each triangle has a side that is the same length as the diagonal line
- ☐ Each triangle has one side that is 3 units long.
- ☐ When one triangle is placed on top of the other and their sides are aligned, we will see that one triangle is larger than the other.
- ☐ The two triangles have the same area as each other.

6. Here is an octagon.



a. While estimating the area of the octagon, Lin reasoned that it must be less than 100 square inches. Do you agree? Explain your reasoning.

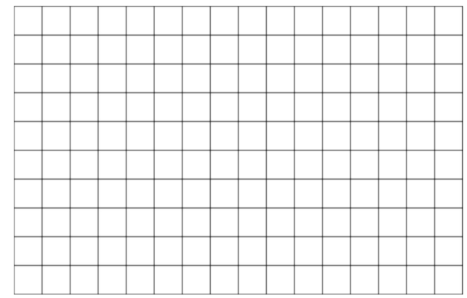
b. Find the exact area of the octagon. Show your reasoning.

Unit 1, Lesson 10: Bases and Heights of Triangles

Let's use different base-height pairs to find the area of a triangle.

1.10.1 Warm-Up: An Area of 12

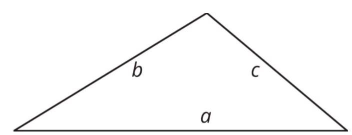
On the grid, draw a triangle with an area of 12 square units. Try to draw a non-right triangle. Be prepared to explain how you know the area of your triangle is 12 square units.



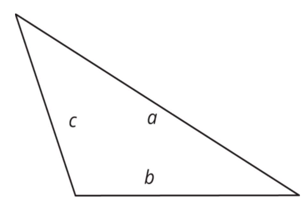
1.10.2 Exploration Activity: Hunting for Heights

1. Here are three copies of the same triangle. The triangle is rotated so that the side chosen as the base is at the bottom and is horizontal. Draw a height that corresponds to each base. Use an index card to help you.

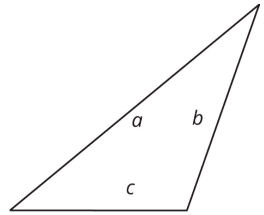
   Side a as the base:



   Side b as the base:

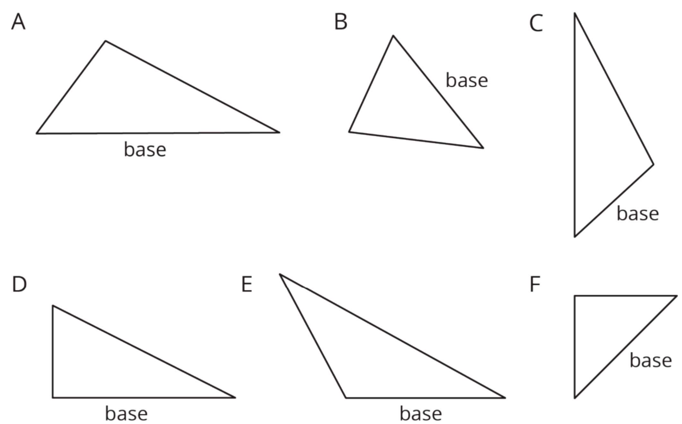


Side c as the base:



Pause for your teacher's instructions before moving to the next question.

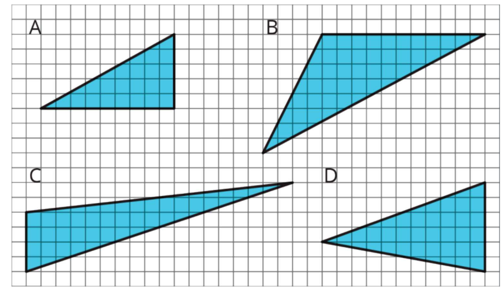
2. Draw a line segment to show the height for the chosen base in each triangle.



1.10.3a Exploration Activity: Some Bases Are Better Than Others

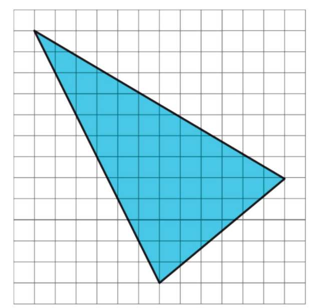
For each triangle, identify and label a base and height. If needed, draw a line segment to show the height.

Then, find the area of the triangle. Show your reasoning. (The side length of each square on the grid is 1 unit.)



1.10.3b Exploration Extension: Are you ready for more?

Find the area of the triangle below. Show your reasoning.

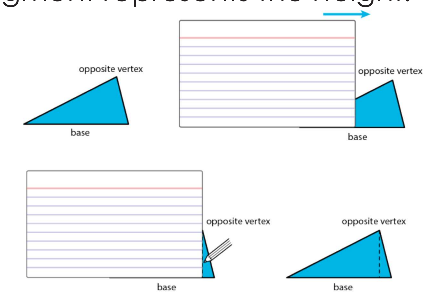


Lesson 10 Summary

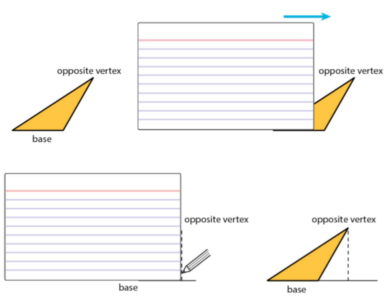
A height of a triangle is a perpendicular segment between the side chosen as the base and the opposite vertex. We can use tools with right angles to help us draw height segments.

An index card (or any stiff paper with a right angle) is a handy tool for drawing a line that is perpendicular to another line.

1. Choose a side of a triangle as the base. Identify its opposite vertex.
2. Line up one edge of the index card with that base.
3. Slide the card along the base until a perpendicular edge of the card meets the opposite vertex.
4. Use the card edge to draw a line from the vertex to the base. That segment represents the height.



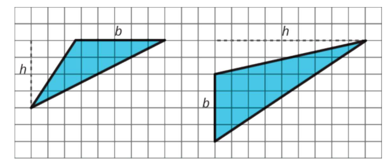
Sometimes we may need to extend the line of the base to identify the height, such as when finding the height obtuse triangle, or whenever the opposite vertex is not directly over the base. In these cases, the height segment is typically drawn *outside* of the triangle.



Even though any side of a triangle can be a base, some base-height pairs can be more easily determined than others, so it helps to choose strategically.

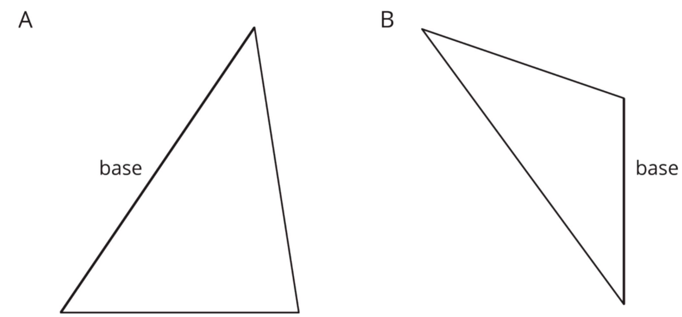
For example, when dealing with a right triangle, it often makes sense to use the two sides that make the right angle as the base and the height because one side is already perpendicular to the other.

If a triangle is on a grid and has a horizontal or a vertical side, you can use that side as a base and use the grid to find the height, as in these examples:

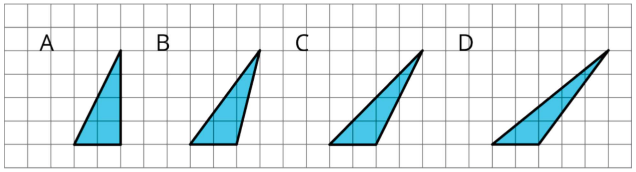


1.10.4 Cool-Down

1. For each triangle below, draw a height segment that corresponds to the given base, and label it h. Use an index card if needed.

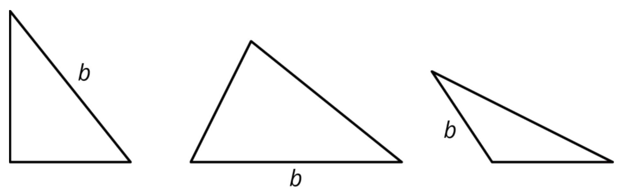


2. Which triangle has the greatest area? The least area? Explain your reasoning

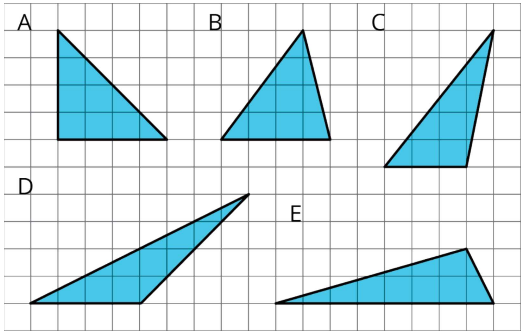


1.10.5 Practice Problems

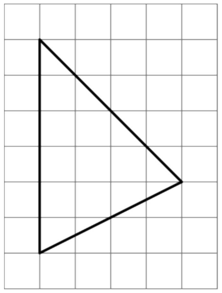
1. For each triangle, a base is labeled b. Draw a line segment that shows its corresponding height. Use an index card to help you draw a straight line.



2. Select all triangles that have an area of 8 square units. Explain how you know.

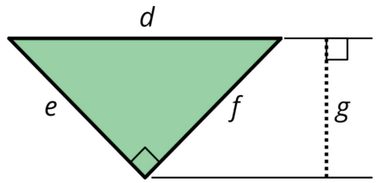


3. Find the area of the triangle. Show your reasoning

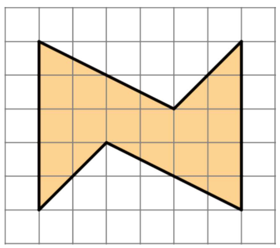


If you get stuck, carefully consider which side of the triangle to use as the base.

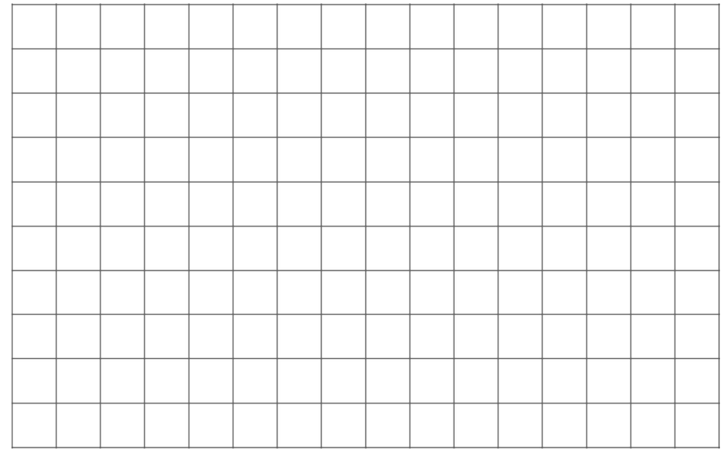
4. Can side d be the base for this triangle? If so, which length would be the corresponding height? If not, explain why not.



5. Find the area of this shape. Show your reasoning.



6. On the grid, sketch two different parallelograms that have equal area. Label a base and height of each and explain how you know the areas are the same.

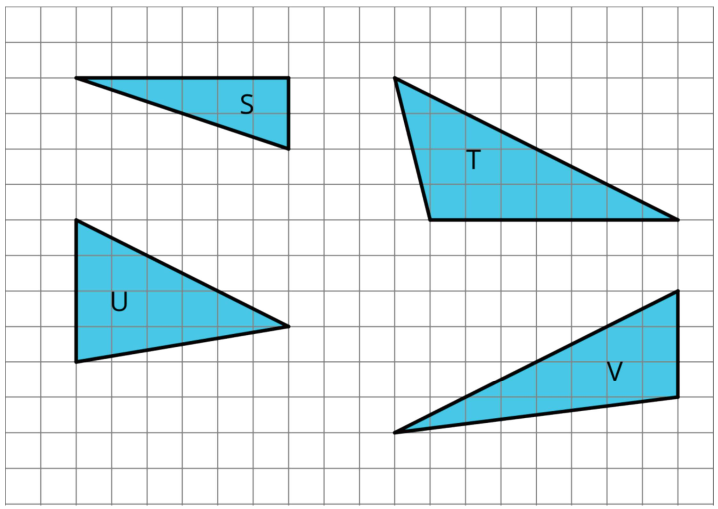


Unit 1, Lesson 11: Polygons

Let's investigate polygons and their areas.

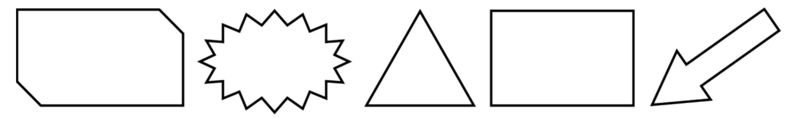
1.11.1 Warm-Up: Which One Doesn't Belong: Bases and Heights

Which one doesn't belong?

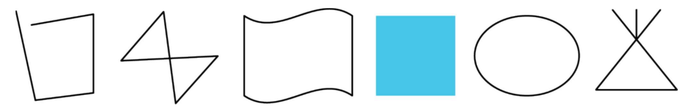


1.11.2 Exploration Activity: What Are Polygons?

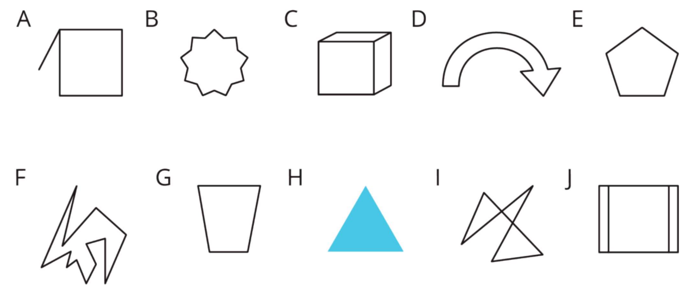
Here are five **polygons**:



Here are six figures that are *not* polygons:



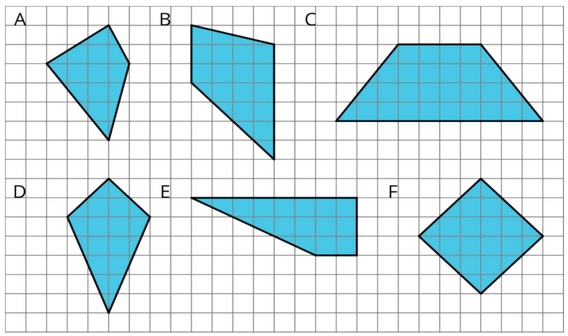
1. Circle the figures that are polygons.



2. What do the figures you circled have in common? What characteristics helped you decide whether a figure was a polygon?

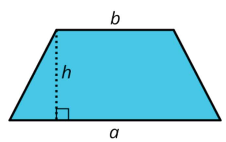
1.11.3a Exploration Activity: Quadrilateral Strategies

Find the area of *two* **quadrilaterals** of your choice. Show your reasoning.



1.11.3b Exploration Extension: Are you ready for more?

Here is a trapezoid. a an b represent the lengths of its bottom and top sides. The segment labeled h represents its height; it is perpendicular to both the top and bottom sides.

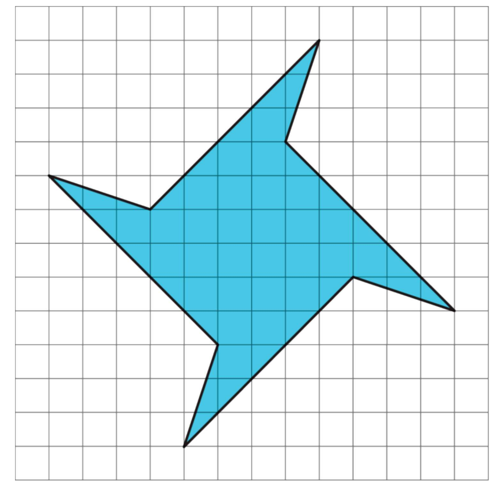


Apply area-reasoning strategies—decomposing, rearranging, duplicating, etc.—on the trapezoid so that you have one or more shapes with areas that you already know how to find.

Use the shapes to help you write a formula for the area of a trapezoid. Show your reasoning.

1.11.4 Exploration Activity: Pinwheel

Find the area of the shaded region in square units. Show your reasoning.



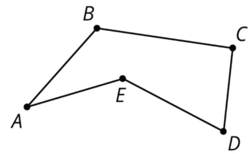
Lesson 11 Summary

A **polygon** is a two-dimensional figure composed of straight line segments

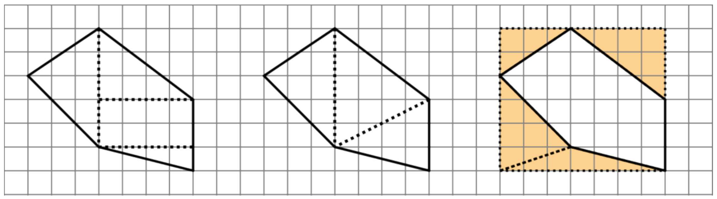
- Each end of a line segment connects to one other line segment. The point where two segments connect is a **vertex**. The plural of vertex is vertices.
- The segments are called the **edges** or **sides** of the polygon. The sides never cross each other. There are always an equal number of vertices and sides.

Here is a polygon with 5 sides. The vertices are labeled $A, B, C, D,$ and E.

A polygon encloses a ion. To find the area of a polyg is to find the area of the region inside it.



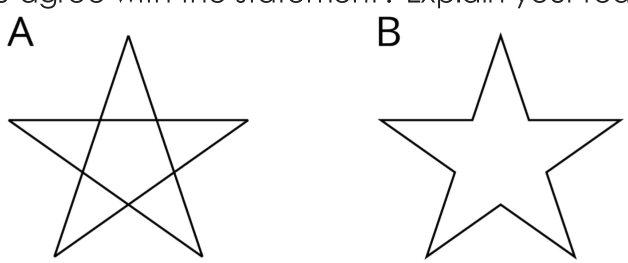
We can find the area of a polygon by decomposing the region inside it into triangles and rectangles.



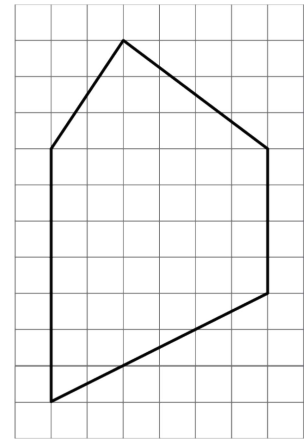
The first two diagrams show the polygon decomposed into triangles and rectangles; the sum of their areas is the area of the polygon. The last diagram shows the polygon enclosed with a rectangle; subtracting the areas of the triangles from the area of the rectangle gives us the area of the polygon.

1.11.5 Cool-Do

1. Here are two five-pointed stars. A student said, "Both figures A and B are polygons. They are both composed of line segments and are two-dimensional. Neither have curves." Do you agree with the statement? Explain your reasoning.

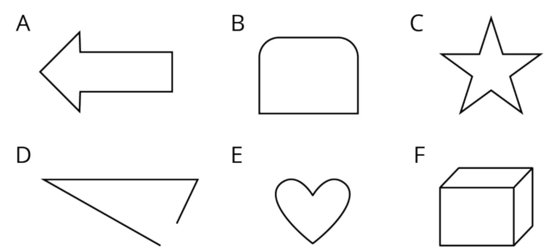


2. Here is a five-sided polygon. Describe or show the strategy you would use to find its area. Mark up and label the diagram to show your reasoning so that it can be follow by others. (It is not necessary to actually calculat the area.)

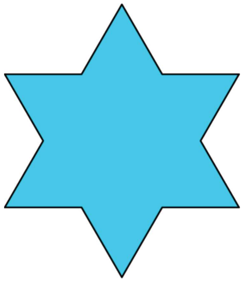


1.11.6 Practice Problems

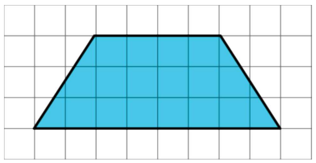
1. Select **all** the polygon



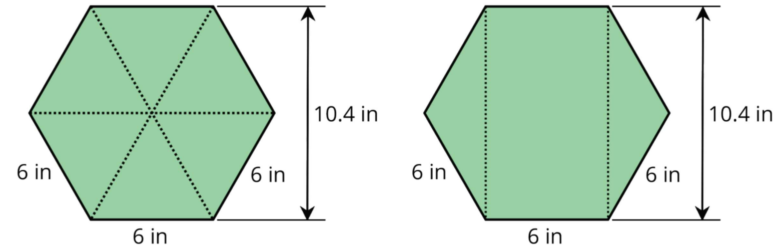
2. Mark each vertex with a large dot. How many edges and vertices does this polygon have?



3. Find the area of this trapezoid. Explain or show your strategy.



4. Lin and Andre used different methods to find the area of a regular hexagon with 6-inch sides. Lin decomposed the hexagon into six identical triangles. Andre decomposed the hexagon into a rectangle and two triangles.



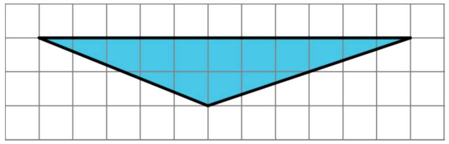
Lin's method

Andre's method

Find the area of the hexagon using each person's method. Show your reasoning.

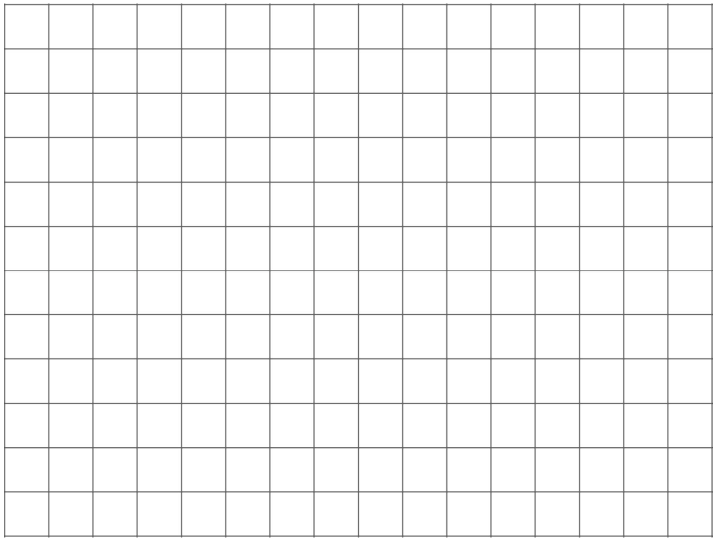
5.

a. Identify a base and a corresponding height that can be used to find the area of this triangle. Label the base b and the corresponding height h.



b. Find the area of the triangle. Show your reasoning.

6. On the grid, draw three different triangles with an area of 12 square units. Label the base and height of each triangle.



Unit 1, Lesson 12: What is Surface Area?

Let's cover the surfaces of some three-dimensional objects.

1.12.1 Warm-Up: Covering the Cabinet (Part 1)

Your teacher will show you a video about a cabinet or some pictures of it.

Estimate an answer to the question: How many sticky notes would it take to cover the cabinet, excluding the bottom?

1.12.2a Exploration Activity: Covering the Cabinet (Part 2)

Earlier, you learned about a cabinet being covered with sticky notes.

1. How could you find the actual number of sticky notes it will take to cover the cabinet, excluding the bottom? What information would you need to know?

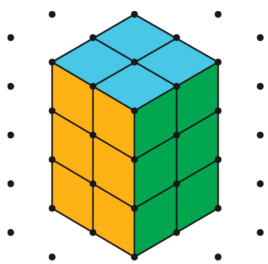
2. Use the information you have to find the number of sticky notes to cover the cabinet. Show your reasoning.

1.12.2b Exploration Extension: Are you ready for more?

How many sticky notes are needed to cover the outside of 2 cabinets pushed together (including the bottom)? What about 3 cabinets? 20 cabinets?

1.12.3 Exploration Activity: Building with Snap Cubes

Here is a sketch of a rectangular prism built from 12 cubes:



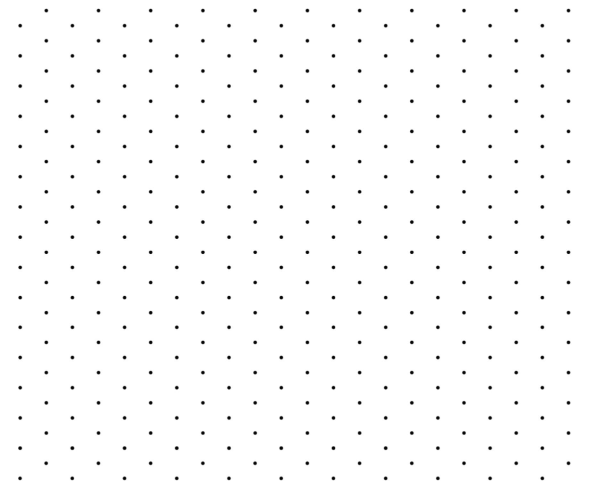
It has six **faces**, but you can only see three of them in the sketch. It has a **surface area** of 32 square units.

You have 12 snap cubes from your teacher. Use all of your snap cubes to build a different rectangular prism (with different edge lengths than shown in the prism here).

1. How many faces does your figure have?

2. What is the surface area of your figure in square units

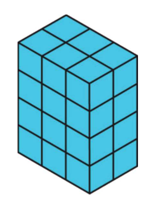
3. Draw your figure on isometric dot paper. Color each face a different color.



Lesson 12 Summary

- The **surface area** of a figure (in square units) is the number of unit squares it takes to cover the entire surface without gaps or overlaps.
- If a three-dimensional figure has flat sides, the sides are called **faces**.
- The surface area is the total of the areas of the fa

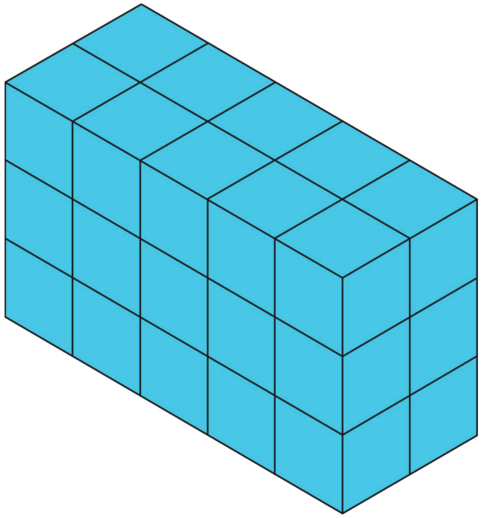
For example, a rectangular prism has six faces. The surface area of the prism is the total of the areas of the six rectangular faces.



So the surface area of a rectangular prism that has ed lengths 2 cm, 3 cm, and 4 cm has a surface area of $(2 \cdot 3) + (2 \cdot 3) + (2 \cdot 4) + (2 \cdot 4) + (3 \cdot 4) + (3 \cdot 4)$ or 52 square centimeters.

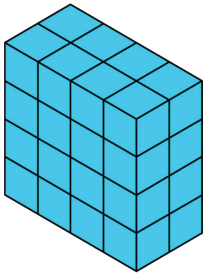
1.12.4 Cool-Down

A rectangular prism made is 3 units high, 2 units wide, and 5 units long. What is its surface area in square units? Explain or show your reasoning.



1.12.5 Practice Problems

1. What is the surface area of this rectangular prism



   A. 16 square units
   B. 32 square uni
   C. 48 square units
   D. 64 square units

2. Which description can represent the surface area of trunk

   A. The number of square inches that cover the top of the trunk.
   B. The number of square feet that cover all the outside faces of the trunk.
   C. The number of square inches of horizontal surface inside the trunk.
   D. The number of cubic feet that can be packed inside the trunk.