

Name \_\_\_\_\_

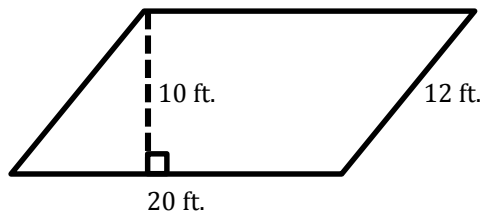
Date \_\_\_\_\_

## Lesson 1: The Area of Parallelograms Through Rectangle Facts

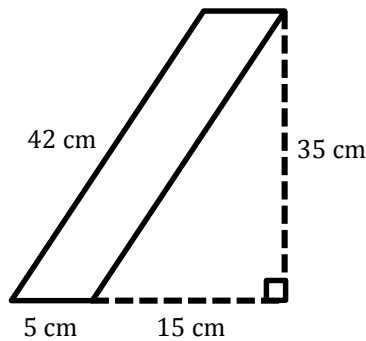
### Exit Ticket

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

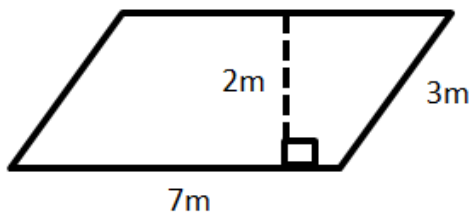
1.



2.



3.



Number Correct: \_\_\_\_\_

**Multiplication of Fractions—Round 1****Directions:** Determine the product of the fractions.

1.	$\frac{1}{2} \times \frac{3}{4}$	
2.	$\frac{5}{6} \times \frac{5}{7}$	
3.	$\frac{3}{4} \times \frac{7}{8}$	
4.	$\frac{4}{5} \times \frac{8}{9}$	
5.	$\frac{1}{4} \times \frac{3}{7}$	
6.	$\frac{5}{7} \times \frac{4}{9}$	
7.	$\frac{3}{5} \times \frac{1}{8}$	
8.	$\frac{2}{9} \times \frac{7}{9}$	
9.	$\frac{1}{3} \times \frac{2}{5}$	
10.	$\frac{3}{7} \times \frac{5}{8}$	
11.	$\frac{2}{3} \times \frac{9}{10}$	
12.	$\frac{3}{5} \times \frac{1}{6}$	
13.	$\frac{2}{7} \times \frac{3}{4}$	
14.	$\frac{5}{8} \times \frac{3}{10}$	
15.	$\frac{4}{5} \times \frac{7}{8}$	

16.	$\frac{8}{9} \times \frac{3}{4}$	
17.	$\frac{3}{4} \times \frac{4}{7}$	
18.	$\frac{1}{4} \times \frac{8}{9}$	
19.	$\frac{3}{5} \times \frac{10}{11}$	
20.	$\frac{8}{13} \times \frac{7}{24}$	
21.	$2\frac{1}{2} \times 3\frac{3}{4}$	
22.	$1\frac{4}{5} \times 6\frac{1}{3}$	
23.	$8\frac{2}{7} \times 4\frac{5}{6}$	
24.	$5\frac{2}{5} \times 2\frac{1}{8}$	
25.	$4\frac{6}{7} \times 1\frac{1}{4}$	
26.	$2\frac{2}{3} \times 4\frac{2}{5}$	
27.	$6\frac{9}{10} \times 7\frac{1}{3}$	
28.	$1\frac{3}{8} \times 4\frac{2}{5}$	
29.	$3\frac{5}{6} \times 2\frac{4}{15}$	
30.	$4\frac{1}{3} \times 5$	

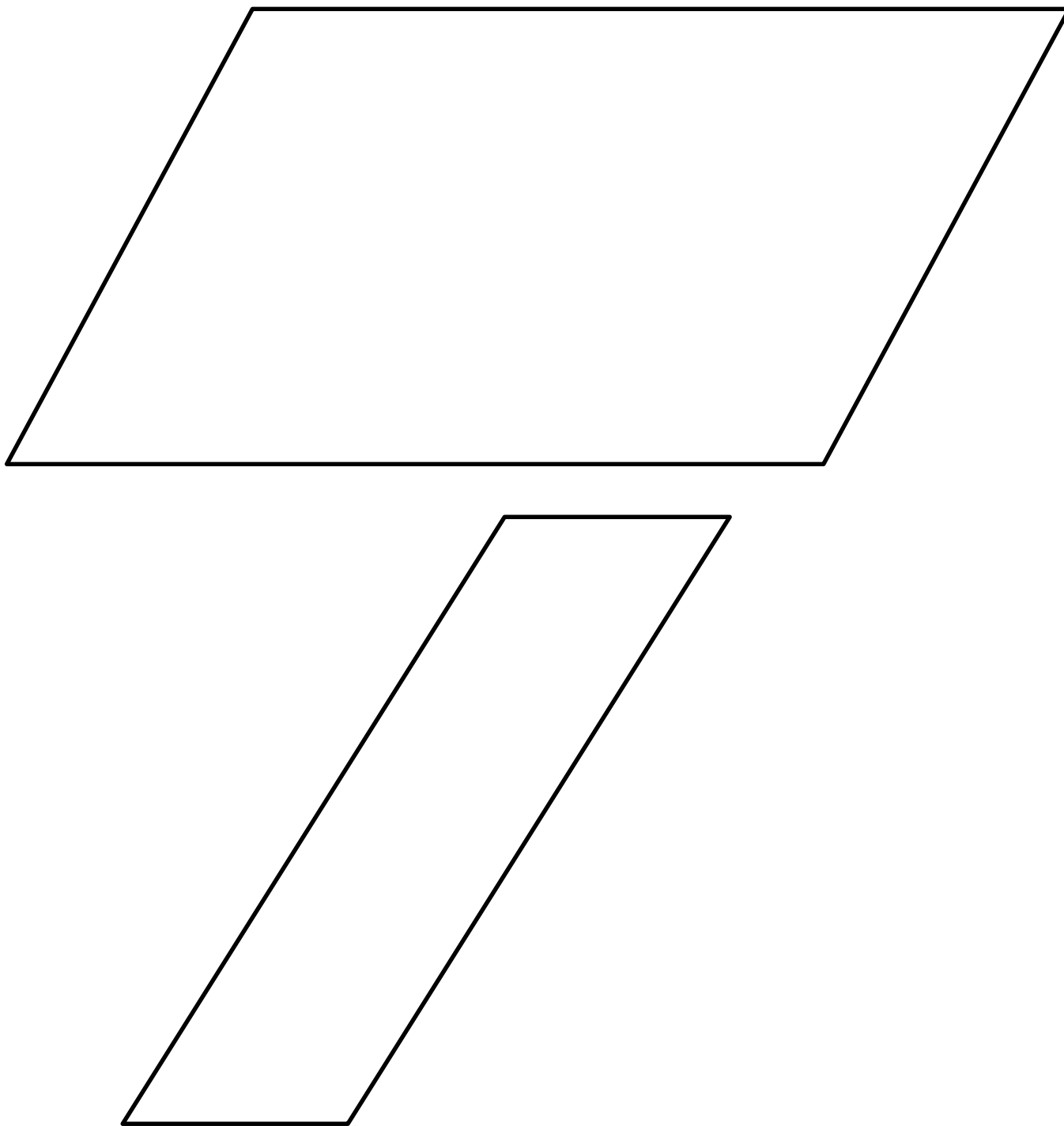
Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

**Multiplication of Fractions—Round 2****Directions:** Determine the product of the fractions.

1.	$\frac{5}{6} \times \frac{1}{4}$	
2.	$\frac{2}{3} \times \frac{5}{7}$	
3.	$\frac{1}{3} \times \frac{2}{5}$	
4.	$\frac{5}{7} \times \frac{5}{8}$	
5.	$\frac{3}{8} \times \frac{7}{9}$	
6.	$\frac{3}{4} \times \frac{5}{6}$	
7.	$\frac{2}{7} \times \frac{3}{8}$	
8.	$\frac{1}{4} \times \frac{3}{4}$	
9.	$\frac{5}{8} \times \frac{3}{10}$	
10.	$\frac{6}{11} \times \frac{1}{2}$	
11.	$\frac{6}{7} \times \frac{5}{8}$	
12.	$\frac{1}{6} \times \frac{9}{10}$	
13.	$\frac{3}{4} \times \frac{8}{9}$	
14.	$\frac{5}{6} \times \frac{2}{3}$	
15.	$\frac{1}{4} \times \frac{8}{11}$	

16.	$\frac{3}{7} \times \frac{2}{9}$	
17.	$\frac{4}{5} \times \frac{10}{13}$	
18.	$\frac{2}{9} \times \frac{3}{8}$	
19.	$\frac{1}{8} \times \frac{4}{5}$	
20.	$\frac{3}{7} \times \frac{2}{15}$	
21.	$1\frac{1}{2} \times 4\frac{3}{4}$	
22.	$2\frac{5}{6} \times 3\frac{3}{8}$	
23.	$1\frac{7}{8} \times 5\frac{1}{5}$	
24.	$6\frac{2}{3} \times 2\frac{3}{8}$	
25.	$7\frac{1}{2} \times 3\frac{6}{7}$	
26.	$3 \times 4\frac{1}{3}$	
27.	$2\frac{3}{5} \times 5\frac{1}{6}$	
28.	$4\frac{2}{5} \times 7$	
29.	$1\frac{4}{7} \times 2\frac{1}{2}$	
30.	$3\frac{5}{6} \times \frac{3}{10}$	



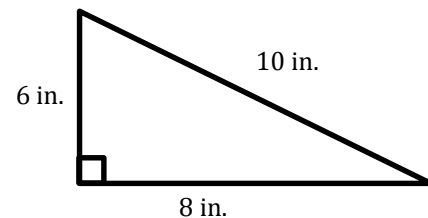
Name \_\_\_\_\_

Date \_\_\_\_\_

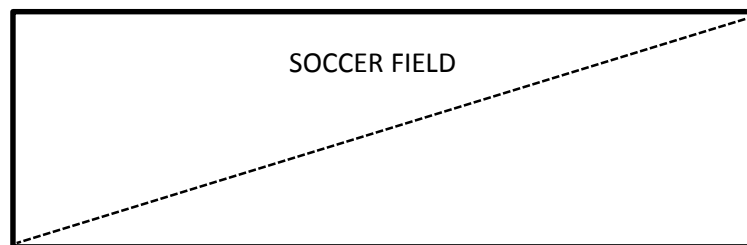
## Lesson 2: The Area of Right Triangles

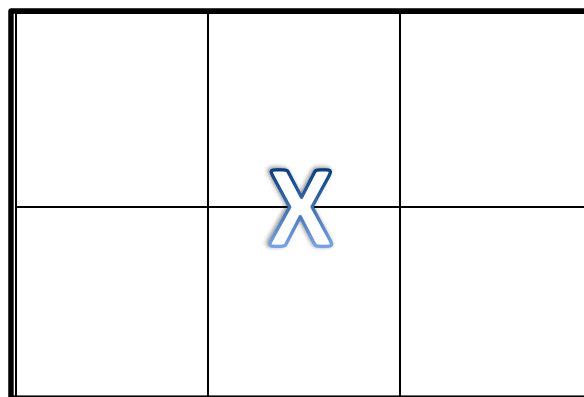
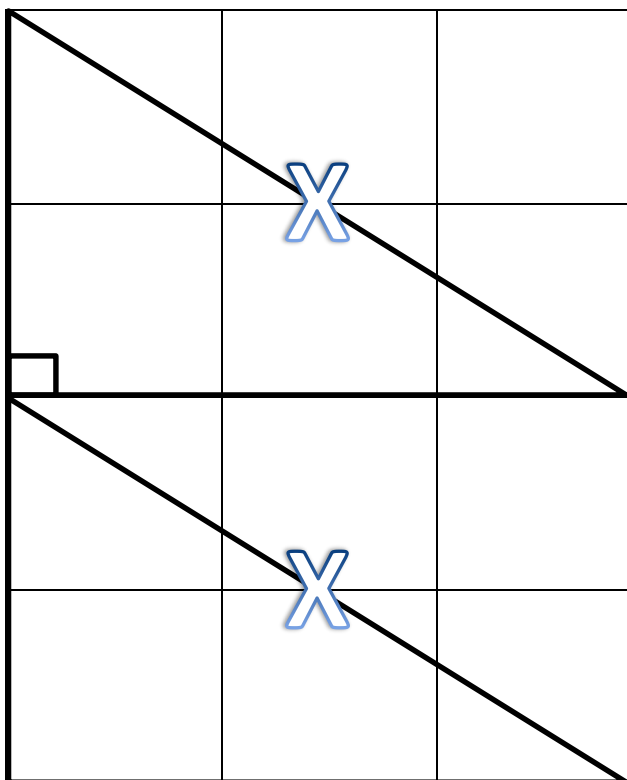
### Exit Ticket

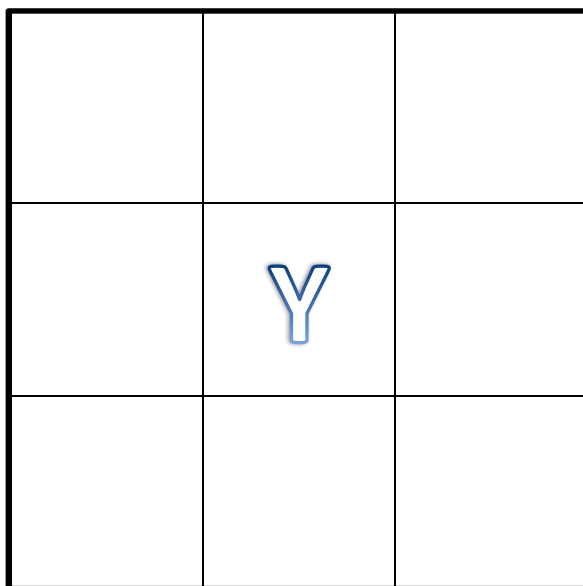
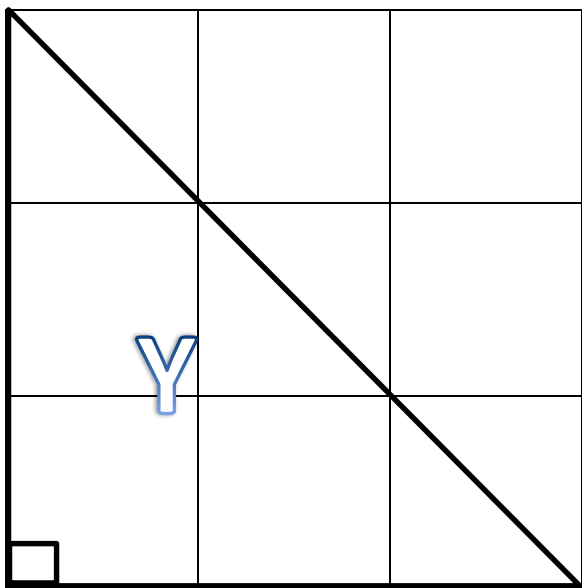
1. Calculate the area of the right triangle. Each figure is not drawn to scale.



2. Dan and Joe are responsible for cutting the grass on the local high school soccer field. Joe cuts a diagonal line through the field, as shown in the diagram below, and says that each person is responsible for cutting the grass on one side of the line. Dan says that this is not fair because he will have to cut more grass than Joe. Is Dan correct? Why or why not?







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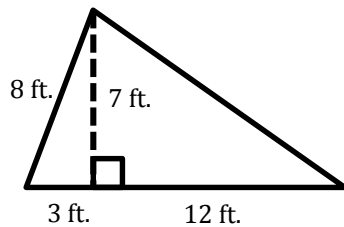
Date \_\_\_\_\_

## Lesson 3: The Area of Acute Triangles Using Height and Base

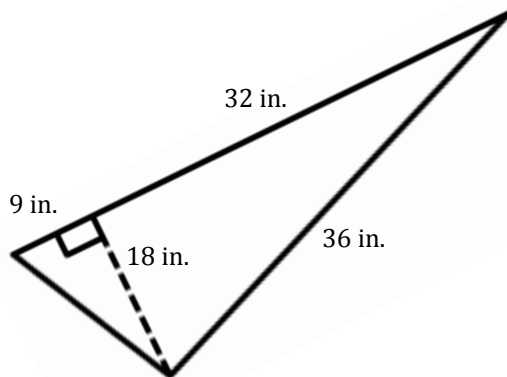
### Exit Ticket

Calculate the area of each triangle using two different methods. Figures are not drawn to scale.

1.



2.





Number Correct: \_\_\_\_\_

**Multiplication of Decimals—Round 1****Directions:** Determine the products of the decimals.

1.	$4.5 \times 3$	
2.	$7.2 \times 8$	
3.	$9.4 \times 6$	
4.	$10.2 \times 7$	
5.	$8.3 \times 4$	
6.	$5.8 \times 2$	
7.	$7.1 \times 9$	
8.	$5.9 \times 10$	
9.	$3.4 \times 3$	
10.	$3.2 \times 4$	
11.	$6 \times 2.8$	
12.	$9.7 \times 3$	
13.	$8 \times 10.2$	
14.	$4 \times 8.9$	
15.	$3.9 \times 7$	
16.	$6 \times 5.5$	
17.	$1.8 \times 8$	
18.	$9 \times 2.3$	

19.	$3.5 \times 4.1$	
20.	$9.3 \times 1.7$	
21.	$10.4 \times 7.6$	
22.	$2.7 \times 8.3$	
23.	$1.8 \times 7.8$	
24.	$7.5 \times 10.1$	
25.	$7.2 \times 6.3$	
26.	$1.9 \times 8.3$	
27.	$9.8 \times 5.1$	
28.	$18.2 \times 12$	
29.	$13.4 \times 22$	
30.	$92.3 \times 45$	
31.	$86.1 \times 16$	
32.	$29.7 \times 8.2$	
33.	$56.8 \times 9.5$	
34.	$110.3 \times 20.2$	
35.	$256.6 \times 54.9$	
36.	$312.8 \times 16.5$	

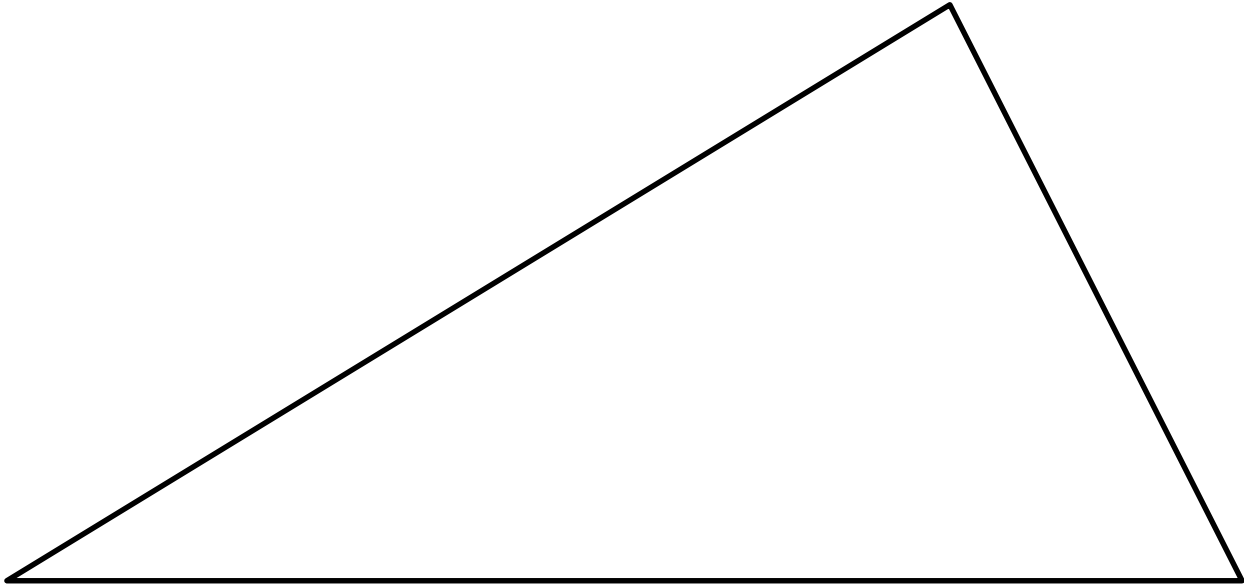
Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

**Multiplication of Decimals—Round 2****Directions:** Determine the products of the decimals.

1.	$3.7 \times 8$	
2.	$9.2 \times 10$	
3.	$2.1 \times 3$	
4.	$4.8 \times 9$	
5.	$3.3 \times 5$	
6.	$7.4 \times 4$	
7.	$8.1 \times 9$	
8.	$1.9 \times 2$	
9.	$5.6 \times 7$	
10.	$3.6 \times 8$	
11.	$4 \times 9.8$	
12.	$5 \times 8.7$	
13.	$1.4 \times 7$	
14.	$3 \times 10.2$	
15.	$2.8 \times 6$	
16.	$3.9 \times 9$	
17.	$8.2 \times 6$	
18.	$4.5 \times 9$	

19.	$4.6 \times 5.2$	
20.	$6.8 \times 1.9$	
21.	$7.8 \times 10.4$	
22.	$3.8 \times 3.9$	
23.	$9.3 \times 4.2$	
24.	$1.4 \times 9.5$	
25.	$9.4 \times 2.7$	
26.	$5.6 \times 4.2$	
27.	$8.6 \times 3.1$	
28.	$14.5 \times 19$	
29.	$33 \times 10.2$	
30.	$51 \times 32.4$	
31.	$45 \times 17.6$	
32.	$15.2 \times 6.7$	
33.	$39.5 \times 8.4$	
34.	$96.8 \times 31.7$	
35.	$189.1 \times 72.9$	
36.	$302.4 \times 13.1$	



Name \_\_\_\_\_

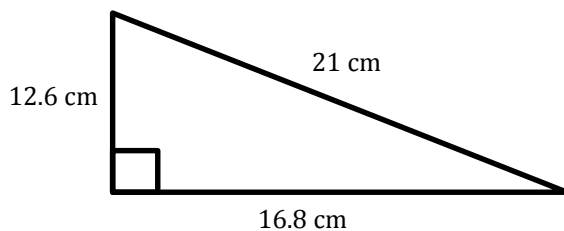
Date \_\_\_\_\_

## Lesson 4: The Area of All Triangles Using Height and Base

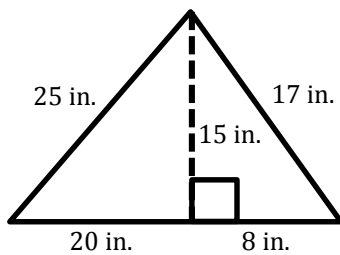
### Exit Ticket

Find the area of each triangle. Figures are not drawn to scale.

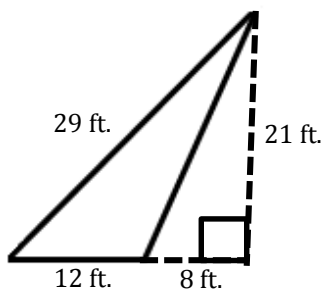
1.

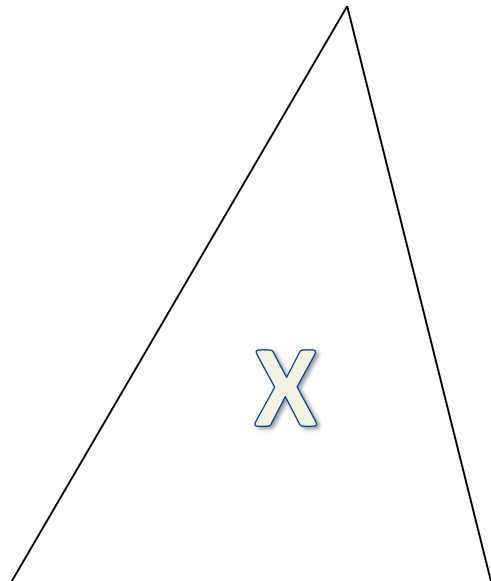
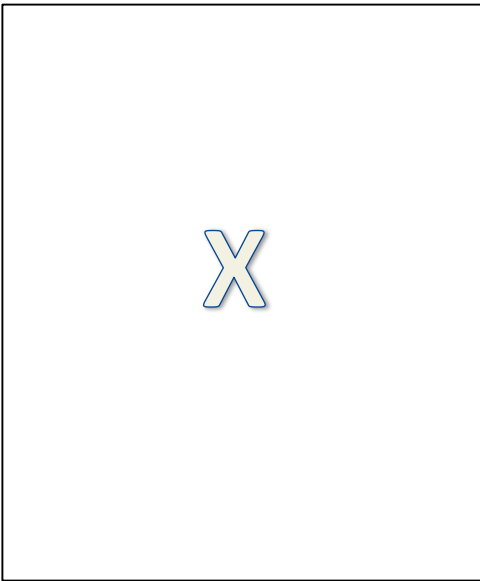
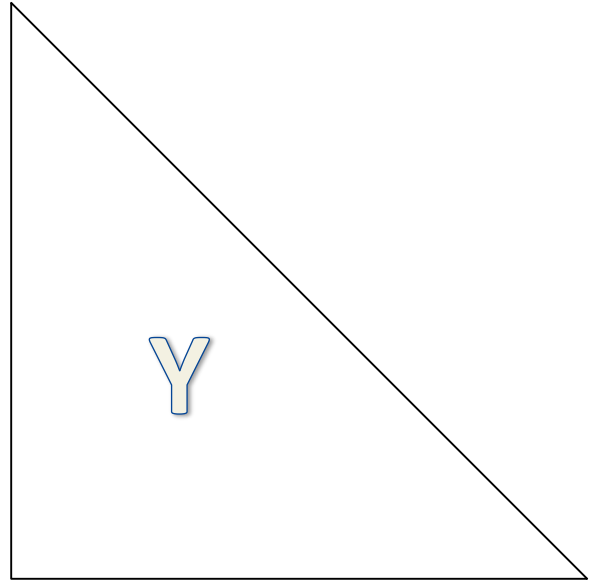
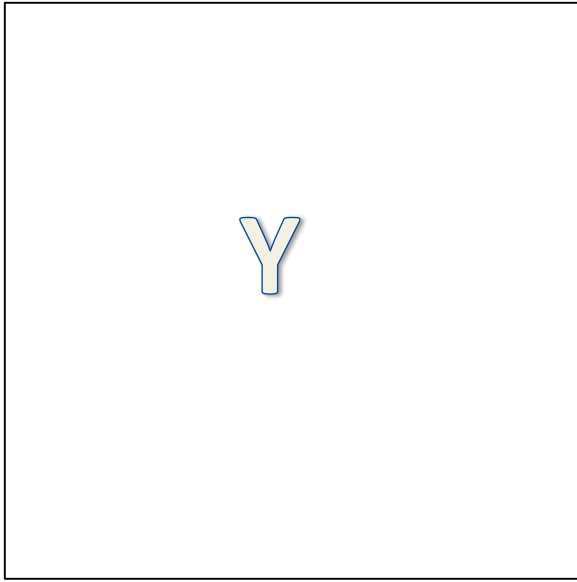


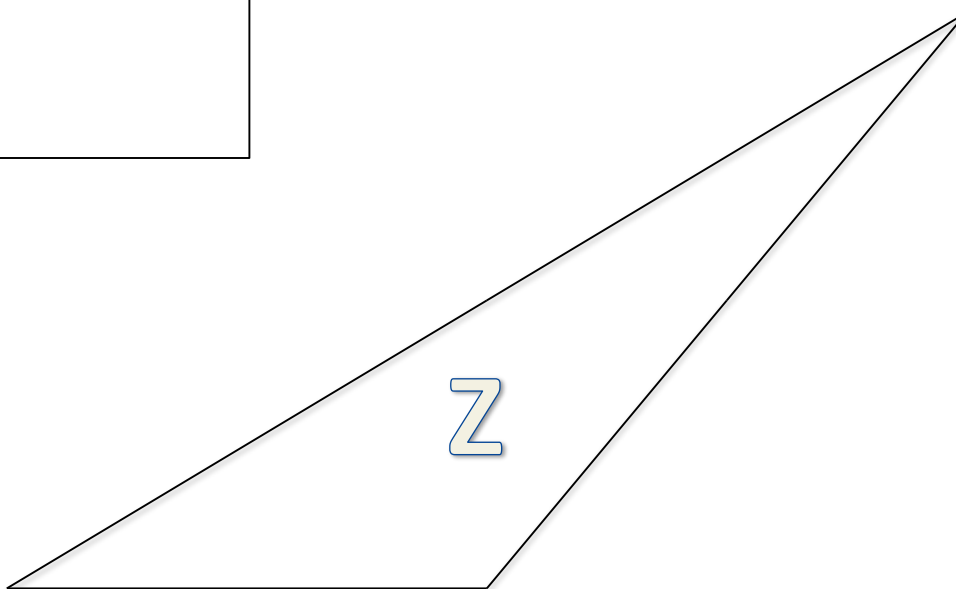
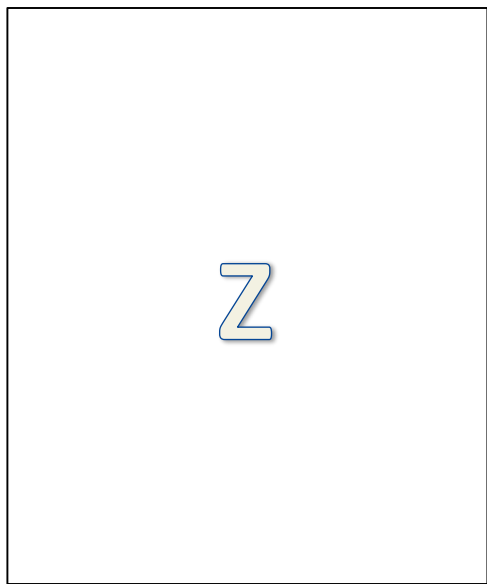
2.



3.







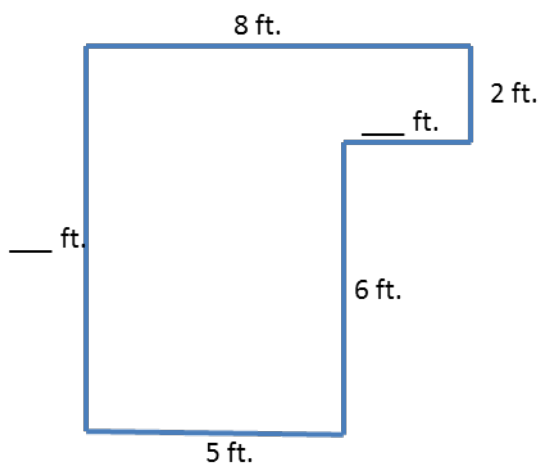
Name \_\_\_\_\_

Date \_\_\_\_\_

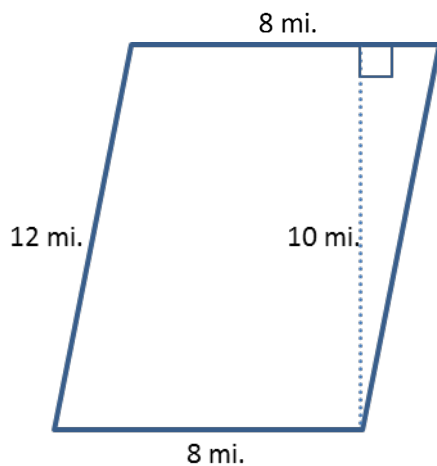
## Lesson 5: The Area of Polygons Through Composition and Decomposition

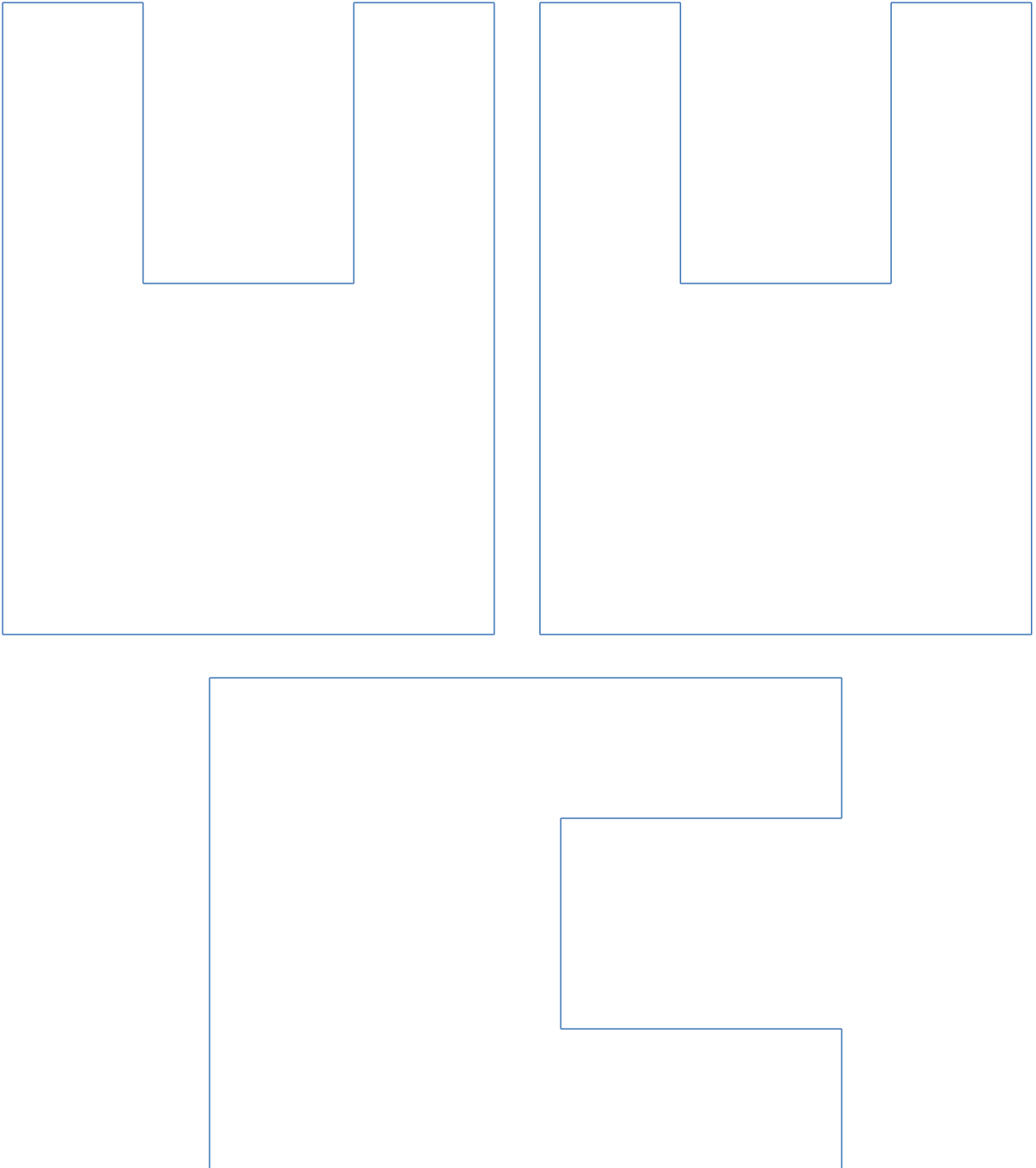
### Exit Ticket

1. Find the missing dimensions of the figure below, and then find the area. The figure is not drawn to scale.

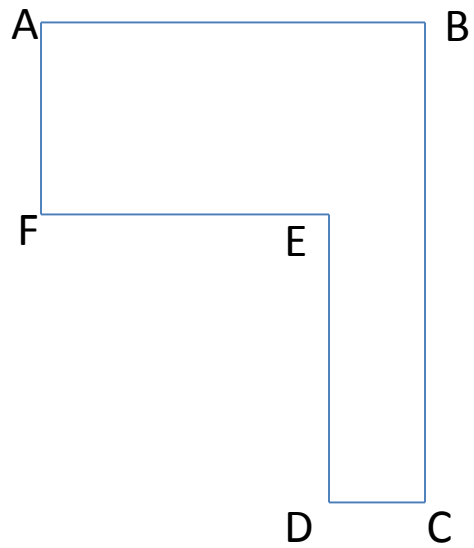
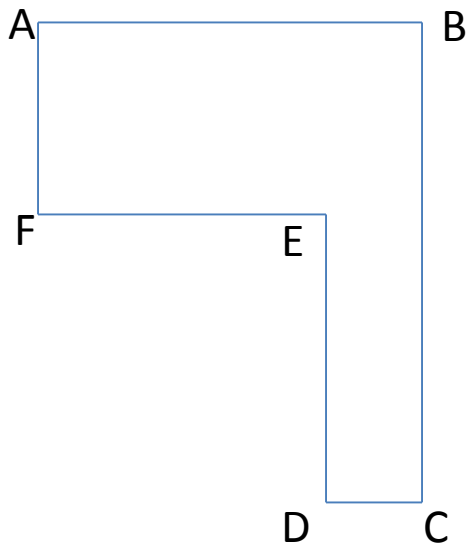
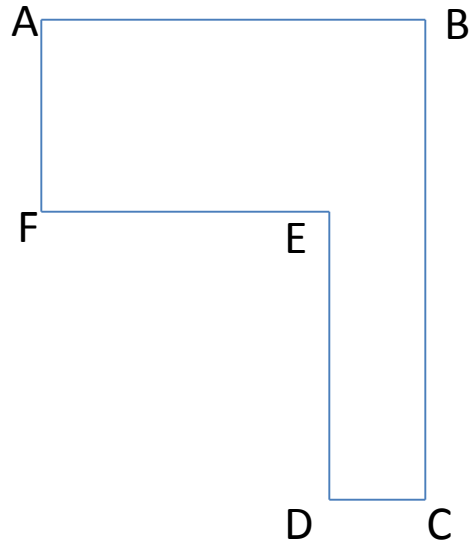
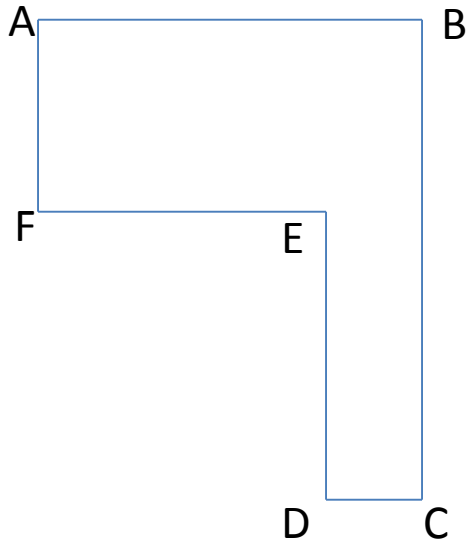


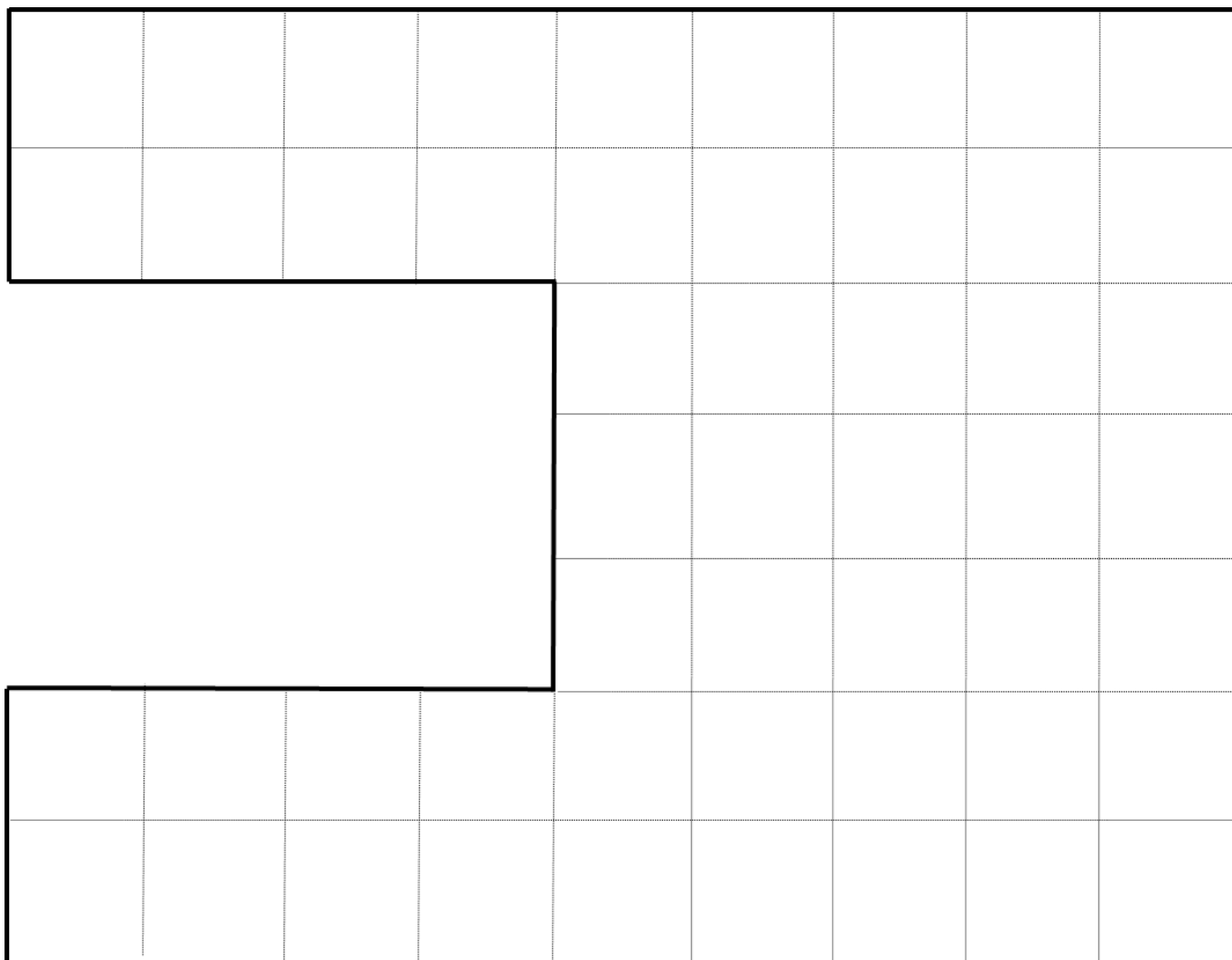
2. Find the area of the parallelogram below. The figure is not drawn to scale.

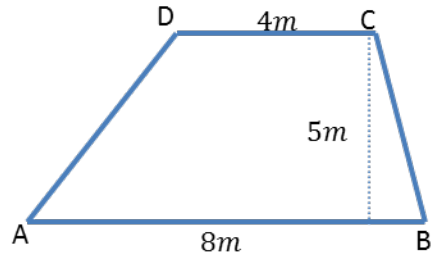
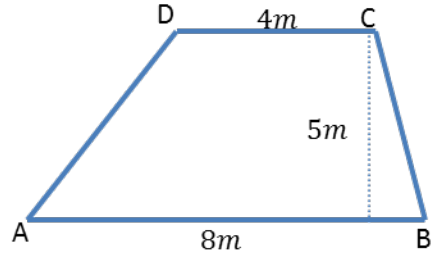
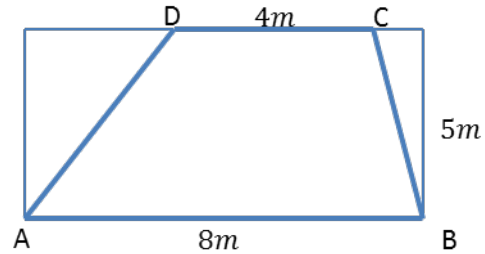
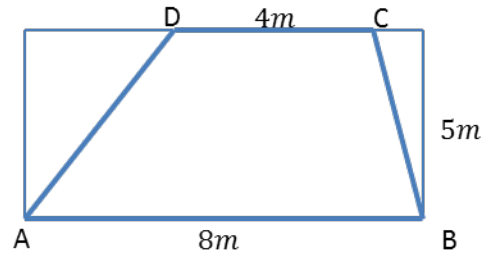
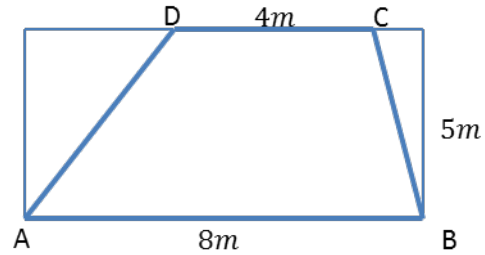


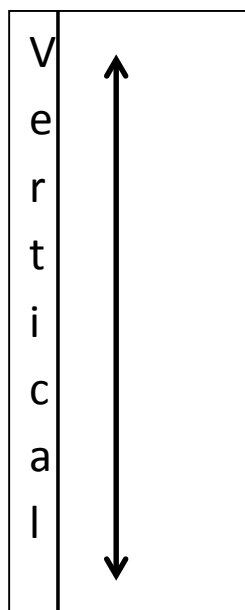












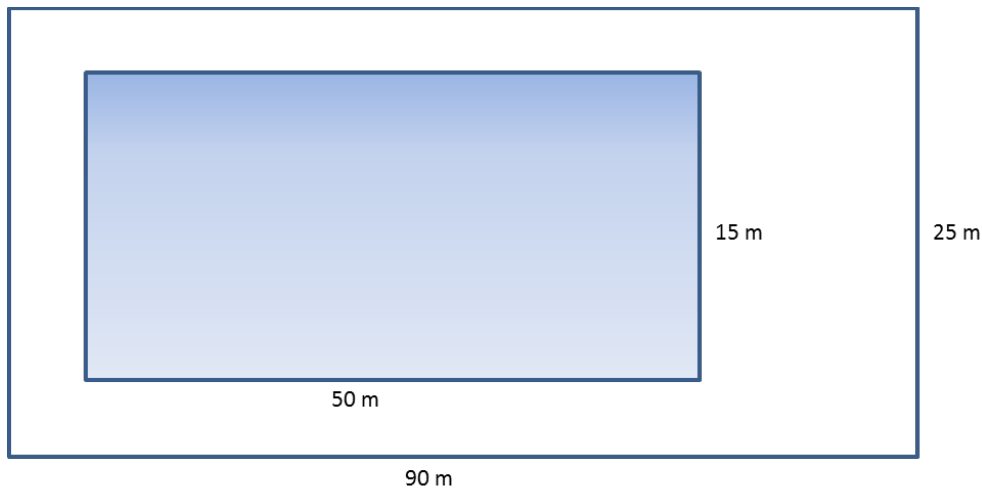
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 6: Area in the Real World

### Exit Ticket

Find the area of the deck around this pool. The deck is the white area in the diagram.



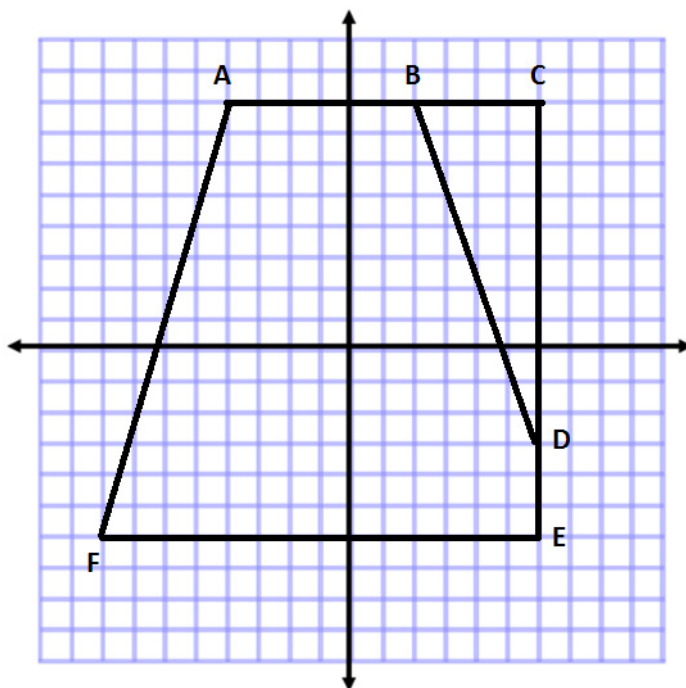
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 7: Distance on the Coordinate Plane

### Exit Ticket

Use absolute value to show the lengths of  $\overline{AB}$ ,  $\overline{BC}$ ,  $\overline{CD}$ ,  $\overline{DE}$ , and  $\overline{EF}$ .



Line Segment	Point	Point	Distance	Proof
$\overline{AB}$				
$\overline{BC}$				
$\overline{CD}$				
$\overline{DE}$				
$\overline{EF}$				

Number Correct: \_\_\_\_\_

**Addition of Decimals—Round 1****Directions:** Determine the sum of the decimals.

1.	$4.2 + 3.5$	
2.	$9.2 + 2.8$	
3.	$23.4 + 45.5$	
4.	$45.2 + 53.7$	
5.	$6.8 + 7.5$	
6.	$5.62 + 3.17$	
7.	$23.85 + 21.1$	
8.	$32.45 + 24.77$	
9.	$112.07 + 54.25$	
10.	$64.82 + 42.7$	
11.	$87.5 + 45.21$	
12.	$16.87 + 17.3$	
13.	$27.84 + 34.21$	
14.	$114.8 + 83.71$	
15.	$235.6 + 78.26$	
16.	$78.04 + 8.29$	
17.	$176.23 + 74.7$	

18.	$89.12 + 45.5$	
19.	$416.78 + 46.5$	
20.	$247.12 + 356.78$	
21.	$9 + 8.47$	
22.	$254.78 + 9$	
23.	$85.12 + 78.99$	
24.	$74.54 + 0.97$	
25.	$108 + 1.75$	
26.	$457.23 + 106$	
27.	$841.99 + 178.01$	
28.	$154 + 85.3$	
29.	$246.34 + 525.66$	
30.	$356 + 0.874$	
31.	$243.84 + 75.3$	
32.	$438.21 + 195.7$	
33.	$85.7 + 17.63$	
34.	$0.648 + 3.08$	

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

**Addition of Decimals—Round 2****Directions:** Determine the sum of the decimals.

1.	$2.5 + 3.1$	
2.	$7.4 + 2.5$	
3.	$7.5 + 9.4$	
4.	$23.5 + 31.2$	
5.	$43.4 + 36.2$	
6.	$23.08 + 75.21$	
7.	$41.41 + 27.27$	
8.	$102.4 + 247.3$	
9.	$67.08 + 22.51$	
10.	$32.27 + 45.31$	
11.	$23.9 + 34.6$	
12.	$31.7 + 54.7$	
13.	$62.5 + 23.9$	
14.	$73.8 + 32.6$	
15.	$114.6 + 241.7$	
16.	$327.4 + 238.9$	
17.	$381.6 + 472.5$	

18.	$24.06 + 31.97$	
19.	$36.92 + 22.19$	
20.	$58.67 + 31.28$	
21.	$43.26 + 32.87$	
22.	$428.74 + 343.58$	
23.	$624.85 + 283.61$	
24.	$568.25 + 257.36$	
25.	$841.66 + 382.62$	
26.	$526 + 85.47$	
27.	$654.19 + 346$	
28.	$654.28 + 547.3$	
29.	$475.84 + 89.3$	
30.	$685.42 + 736.5$	
31.	$635.54 + 582$	
32.	$835.7 + 109.54$	
33.	$627 + 225.7$	
34.	$357.23 + 436.77$	



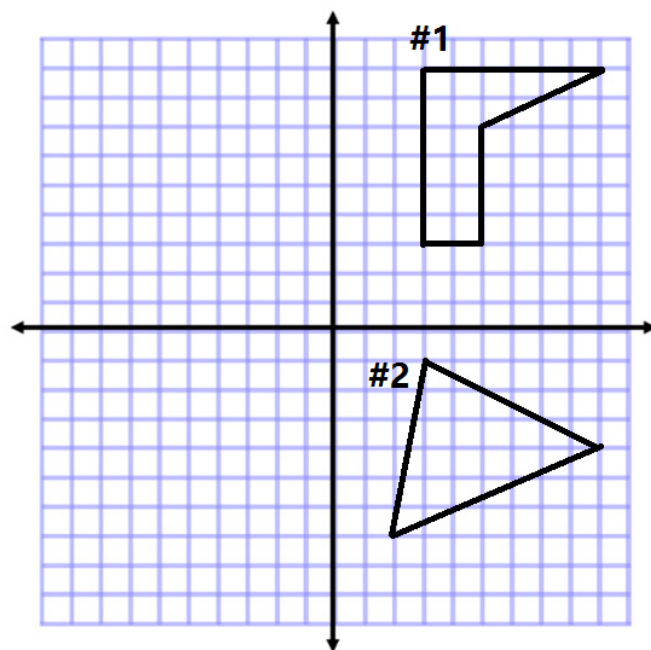
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 8: Drawing Polygons on the Coordinate Plane

### Exit Ticket

Determine the area of both polygons on the coordinate plane, and explain why you chose the methods you used. Then write an expression that could be used to determine the area of the figure. Explain how each part of the expression corresponds to the situation.



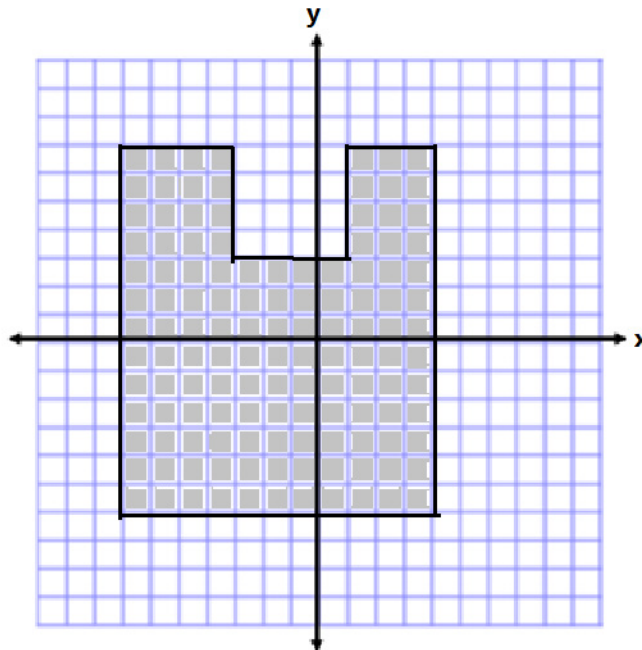
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 9: Determining Area and Perimeter of Polygons on the Coordinate Plane

### Exit Ticket

Determine the area and perimeter of the figure below. Note that each square unit is 1 unit in length.



Number Correct: \_\_\_\_\_

**Addition and Subtraction Equations—Round 1****Directions:** Find the value of  $m$  in each equation.

1.	$m + 4 = 11$	
2.	$m + 2 = 5$	
3.	$m + 5 = 8$	
4.	$m - 7 = 10$	
5.	$m - 8 = 1$	
6.	$m - 4 = 2$	
7.	$m + 12 = 34$	
8.	$m + 25 = 45$	
9.	$m + 43 = 89$	
10.	$m - 20 = 31$	
11.	$m - 13 = 34$	
12.	$m - 45 = 68$	
13.	$m + 34 = 41$	
14.	$m + 29 = 52$	
15.	$m + 37 = 61$	
16.	$m - 43 = 63$	
17.	$m - 21 = 40$	

18.	$m - 54 = 37$	
19.	$4 + m = 9$	
20.	$6 + m = 13$	
21.	$2 + m = 31$	
22.	$15 = m + 11$	
23.	$24 = m + 13$	
24.	$32 = m + 28$	
25.	$4 = m - 7$	
26.	$3 = m - 5$	
27.	$12 = m - 14$	
28.	$23.6 = m - 7.1$	
29.	$14.2 = m - 33.8$	
30.	$2.5 = m - 41.8$	
31.	$64.9 = m + 23.4$	
32.	$72.2 = m + 38.7$	
33.	$1.81 = m - 15.13$	
34.	$24.68 = m - 56.82$	

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

**Addition and Subtraction Equations—Round 2****Directions:** Find the value of  $m$  in each equation.

1.	$m + 2 = 7$	
2.	$m + 4 = 10$	
3.	$m + 8 = 15$	
4.	$m + 7 = 23$	
5.	$m + 12 = 16$	
6.	$m - 5 = 2$	
7.	$m - 3 = 8$	
8.	$m - 4 = 12$	
9.	$m - 14 = 45$	
10.	$m + 23 = 40$	
11.	$m + 13 = 31$	
12.	$m + 23 = 48$	
13.	$m + 38 = 52$	
14.	$m - 14 = 27$	
15.	$m - 23 = 35$	
16.	$m - 17 = 18$	
17.	$m - 64 = 1$	

18.	$6 = m + 3$	
19.	$12 = m + 7$	
20.	$24 = m + 16$	
21.	$13 = m + 9$	
22.	$32 = m - 3$	
23.	$22 = m - 12$	
24.	$34 = m - 10$	
25.	$48 = m + 29$	
26.	$21 = m + 17$	
27.	$52 = m + 37$	
28.	$\frac{6}{7} = m + \frac{4}{7}$	
29.	$\frac{2}{3} = m - \frac{5}{3}$	
30.	$\frac{1}{4} = m - \frac{8}{3}$	
31.	$\frac{5}{6} = m - \frac{7}{12}$	
32.	$\frac{7}{8} = m - \frac{5}{12}$	
33.	$\frac{7}{6} + m = \frac{16}{3}$	
34.	$\frac{1}{3} + m = \frac{13}{15}$	

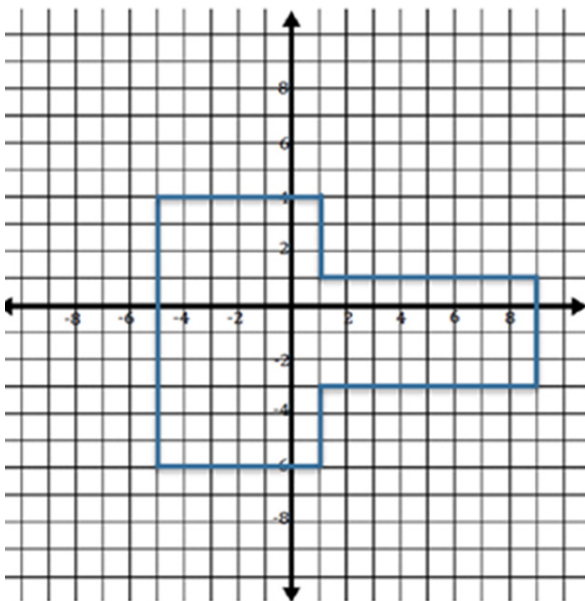
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 10: Distance, Perimeter, and Area in the Real World

### Exit Ticket

1. The local school is building a new playground. This plan shows the part of the playground that needs to be framed with wood for the swing set. The unit of measure is feet. Determine the number of feet of wood that will be needed to frame the area.

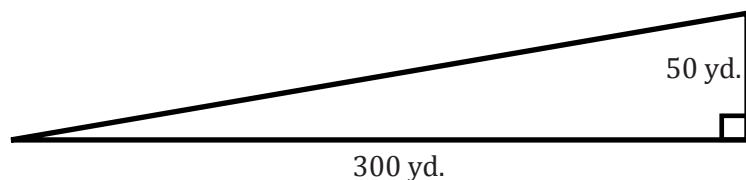


2. The school will fill the area with wood mulch for safety. Determine the number of square feet that need to be covered by the mulch.

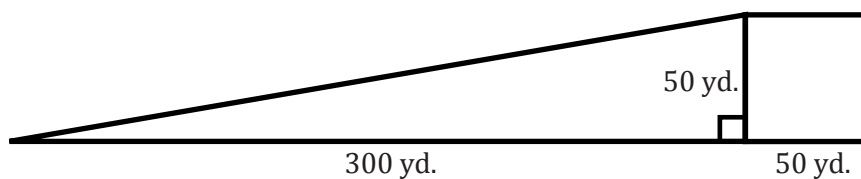
Name \_\_\_\_\_

Date \_\_\_\_\_

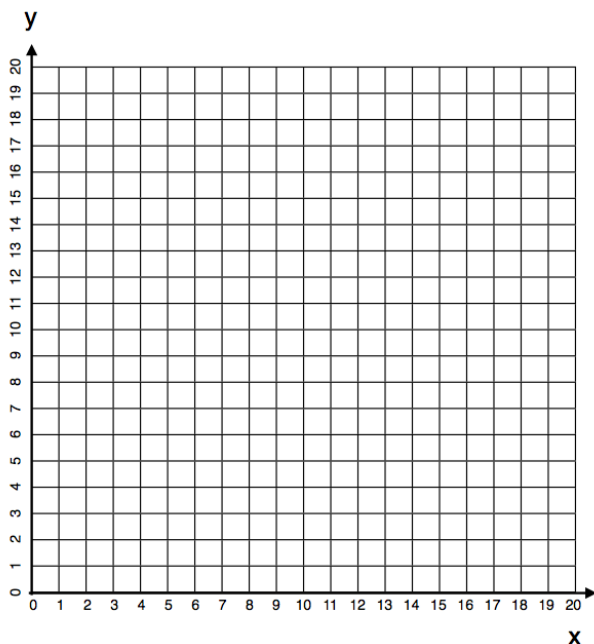
1. David is the groundskeeper at Triangle Park, shown below.



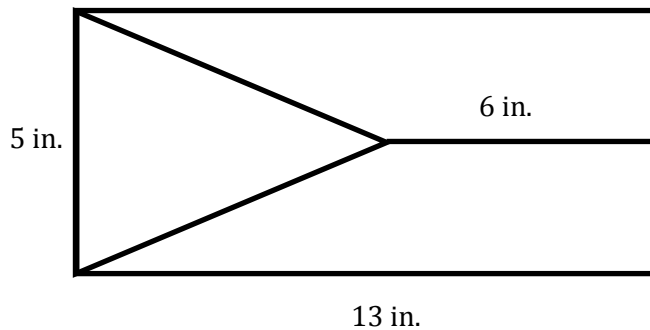
- a. David needs to cut the grass four times a month. How many square yards of grass will he cut altogether each month?
- b. During the winter, the triangular park and adjacent square parking lot are flooded with water and allowed to freeze so that people can go ice skating. What is the area of the ice?



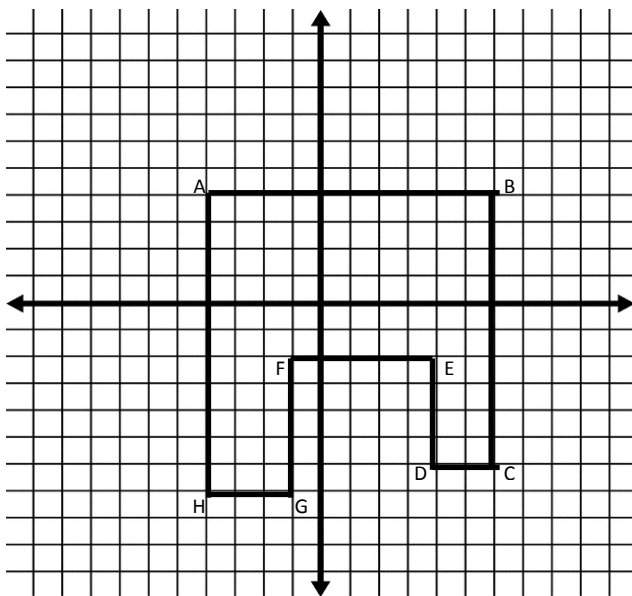
2. Marika is looking for a new computer table. Part (b) presents a sketch of two computer tables she likes when looking at them from above. All measurements are in feet.
- a. If Marika needs to choose the one with the greater area, which one should she choose? Justify your answer with evidence, using coordinates to determine side lengths.
- b. If Marika needs to choose the one with the greater perimeter, which one should she choose? Justify your answer with evidence, using coordinates to determine side lengths.



3. Find the area of the triangular region.



4. The grid below shows a birds-eye view of a middle school.



Point	Coordinates		Segment	Length (m)
A			$\overline{AB}$	
B			$\overline{BC}$	
C			$\overline{CD}$	
D			$\overline{DE}$	
E			$\overline{EF}$	
F			$\overline{FG}$	
G			$\overline{GH}$	
H			$\overline{HA}$	

- Write the coordinates of each point in the table.
- Each space on the grid stands for 10 meters. Find the length of each wall of the school.
- Find the area of the entire building. Show your work.



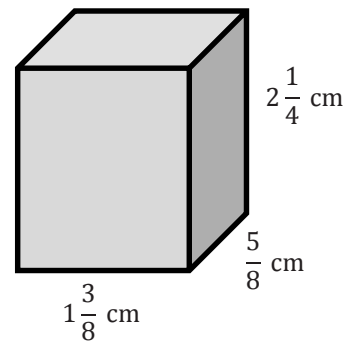
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 11: Volume with Fractional Edge Lengths and Unit Cubes

### Exit Ticket

Calculate the volume of the rectangular prism using two different methods. Label your solutions Method 1 and Method 2.



Number Correct: \_\_\_\_\_

## Multiplication of Fractions II—Round 1

Directions: Determine the product of the fractions.

1.	$\frac{1}{2} \times \frac{5}{8}$	
2.	$\frac{3}{4} \times \frac{3}{5}$	
3.	$\frac{1}{4} \times \frac{7}{8}$	
4.	$\frac{3}{9} \times \frac{2}{5}$	
5.	$\frac{5}{8} \times \frac{3}{7}$	
6.	$\frac{3}{7} \times \frac{4}{9}$	
7.	$\frac{2}{5} \times \frac{3}{8}$	
8.	$\frac{4}{9} \times \frac{5}{9}$	
9.	$\frac{2}{3} \times \frac{5}{7}$	
10.	$\frac{2}{7} \times \frac{3}{10}$	
11.	$\frac{3}{4} \times \frac{9}{10}$	
12.	$\frac{3}{5} \times \frac{2}{9}$	
13.	$\frac{2}{10} \times \frac{5}{6}$	
14.	$\frac{5}{8} \times \frac{7}{10}$	
15.	$\frac{3}{5} \times \frac{7}{9}$	

16.	$\frac{2}{9} \times \frac{3}{8}$	
17.	$\frac{3}{8} \times \frac{8}{9}$	
18.	$\frac{3}{4} \times \frac{7}{9}$	
19.	$\frac{3}{5} \times \frac{10}{13}$	
20.	$1\frac{2}{7} \times \frac{7}{8}$	
21.	$3\frac{1}{2} \times 3\frac{5}{6}$	
22.	$1\frac{7}{8} \times 5\frac{1}{5}$	
23.	$5\frac{4}{5} \times 3\frac{2}{9}$	
24.	$7\frac{2}{5} \times 2\frac{3}{8}$	
25.	$4\frac{2}{3} \times 2\frac{3}{10}$	
26.	$3\frac{3}{5} \times 6\frac{1}{4}$	
27.	$2\frac{7}{9} \times 5\frac{1}{3}$	
28.	$4\frac{3}{8} \times 3\frac{1}{5}$	
29.	$3\frac{1}{3} \times 5\frac{2}{5}$	
30.	$2\frac{2}{3} \times 7$	

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

**Multiplication of Fractions II—Round 2****Directions:** Determine the product of the fractions.

1.	$\frac{2}{3} \times \frac{5}{7}$	
2.	$\frac{1}{4} \times \frac{3}{5}$	
3.	$\frac{2}{3} \times \frac{2}{5}$	
4.	$\frac{5}{9} \times \frac{5}{8}$	
5.	$\frac{5}{8} \times \frac{3}{7}$	
6.	$\frac{3}{4} \times \frac{7}{8}$	
7.	$\frac{2}{5} \times \frac{3}{8}$	
8.	$\frac{3}{4} \times \frac{3}{4}$	
9.	$\frac{7}{8} \times \frac{3}{10}$	
10.	$\frac{4}{9} \times \frac{1}{2}$	
11.	$\frac{6}{11} \times \frac{3}{8}$	
12.	$\frac{5}{6} \times \frac{9}{10}$	
13.	$\frac{3}{4} \times \frac{2}{9}$	
14.	$\frac{4}{11} \times \frac{5}{8}$	
15.	$\frac{2}{3} \times \frac{9}{10}$	

16.	$\frac{3}{11} \times \frac{2}{9}$	
17.	$\frac{3}{5} \times \frac{10}{21}$	
18.	$\frac{4}{9} \times \frac{3}{10}$	
19.	$\frac{3}{8} \times \frac{4}{5}$	
20.	$\frac{6}{11} \times \frac{2}{15}$	
21.	$1\frac{2}{3} \times \frac{3}{5}$	
22.	$2\frac{1}{6} \times \frac{3}{4}$	
23.	$1\frac{2}{5} \times 3\frac{2}{3}$	
24.	$4\frac{2}{3} \times 1\frac{1}{4}$	
25.	$3\frac{1}{2} \times 2\frac{4}{5}$	
26.	$3 \times 5\frac{3}{4}$	
27.	$1\frac{2}{3} \times 3\frac{1}{4}$	
28.	$2\frac{3}{5} \times 3$	
29.	$1\frac{5}{7} \times 3\frac{1}{2}$	
30.	$3\frac{1}{3} \times 1\frac{9}{10}$	

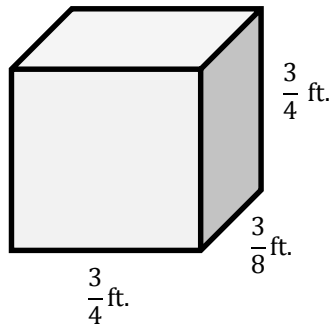
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 12: From Unit Cubes to the Formulas for Volume

### Exit Ticket

1. Determine the volume of the rectangular prism in two different ways.



2. The area of the base of a rectangular prism is  $12 \text{ cm}^2$ , and the height is  $3\frac{1}{3} \text{ cm}$ . Determine the volume of the rectangular prism.

# Station A

Make a sketch of the figure. Then, calculate the volume.

Rectangular prism:

$$\text{Area of the base} = 4\frac{3}{8} \text{ ft}^2$$

$$\text{Height} = 2\frac{1}{2} \text{ ft.}$$

# Station B

Make a sketch of the figure. Write the length, the width, and height in feet. Then, calculate the volume.

Rectangular prism:

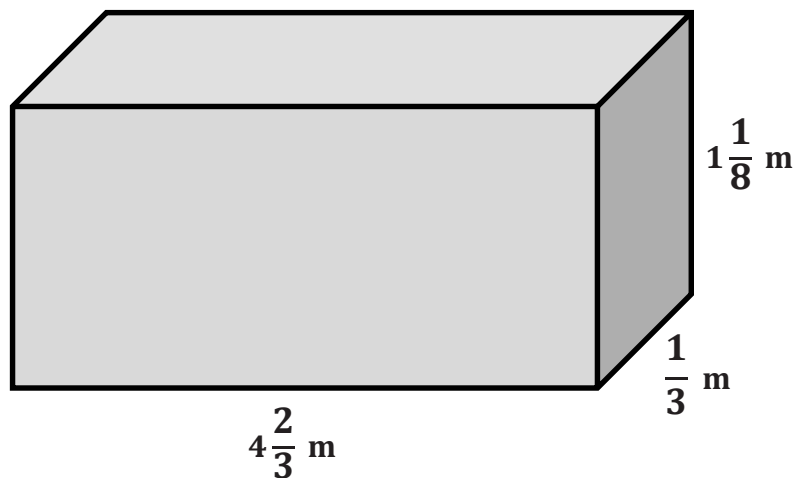
Length is  $2\frac{1}{2}$  times the height.

Width is  $\frac{3}{4}$  as long as the height.

Height = 3 ft.

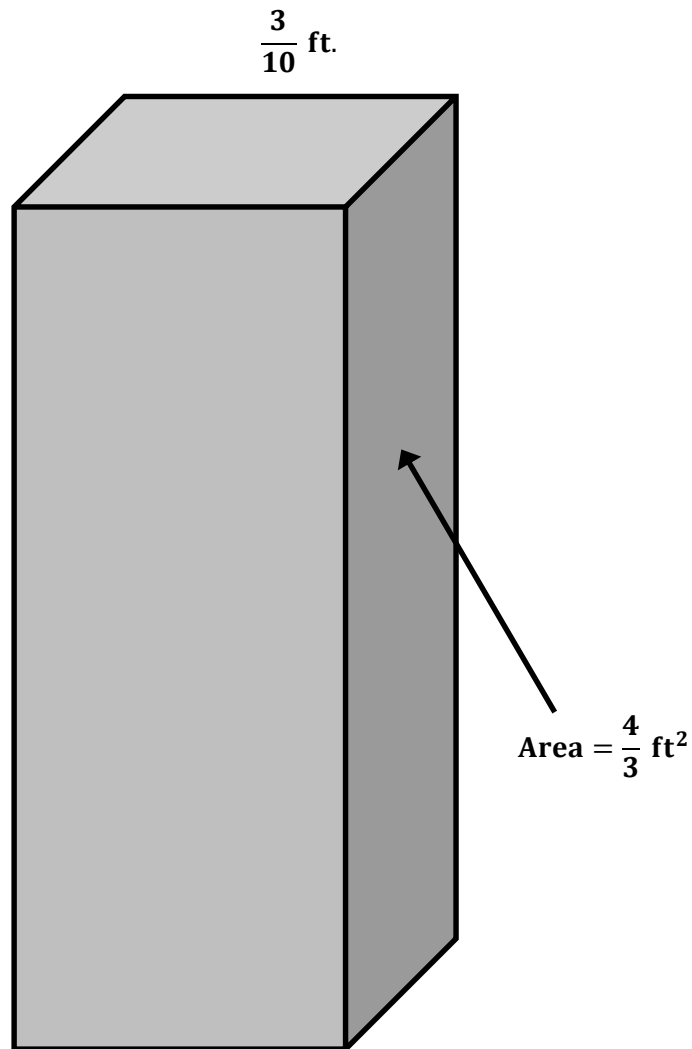
# Station C

Write two different expressions to represent the volume, and explain what each expression represents.



# Station D

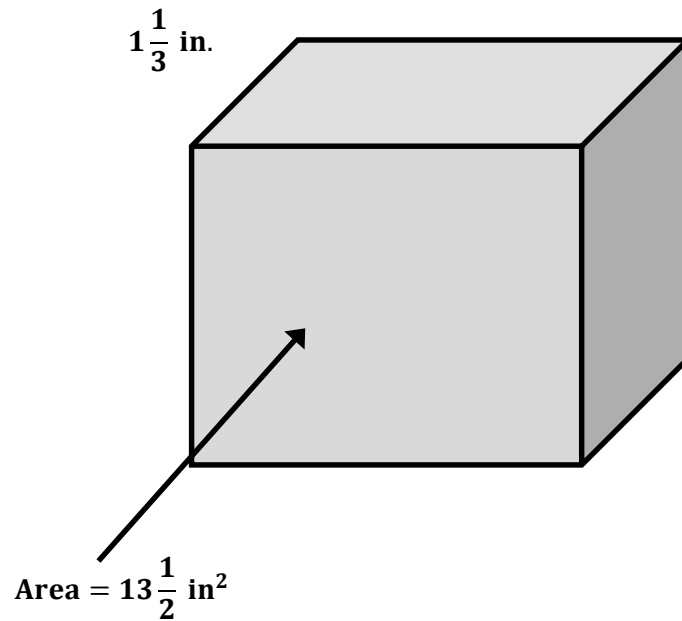
Calculate the volume.





# Station E

Calculate the volume.



# Station F

## Challenge:

Determine the volume of a rectangular prism whose length and width are in a ratio of 3:1. The width and height are in a ratio of 2:3. The length of the rectangular prism is 5 ft.

Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 13: The Formulas for Volume

### Exit Ticket

1. A new company wants to mail out samples of its hair products. The company has a sample box that is a rectangular prism with a rectangular base with an area of  $23\frac{1}{3}$  in<sup>2</sup>. The height of the prism is  $1\frac{1}{4}$  in.  
Determine the volume of the sample box.

2. A different sample box has a height that is twice as long as the original box described in Problem 1. What is the volume of this sample box? How does the volume of this sample box compare to the volume of the sample box in Problem 1?

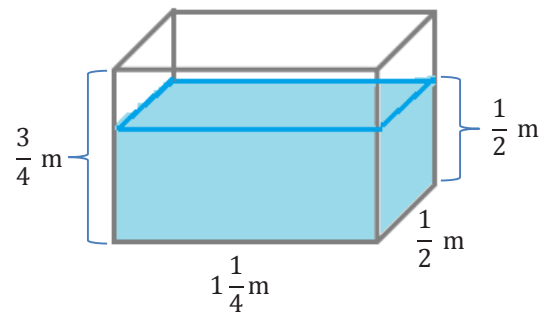
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Date \_\_\_\_\_

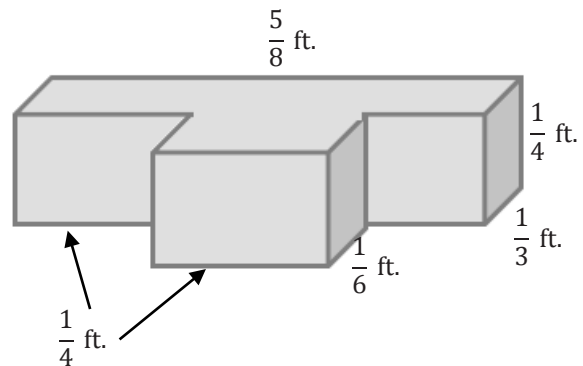
## Lesson 14: Volume in the Real World

### Exit Ticket

1. Determine the volume of the water that would be needed to fill the rest of the tank.



2. Determine the volume of the composite figure.



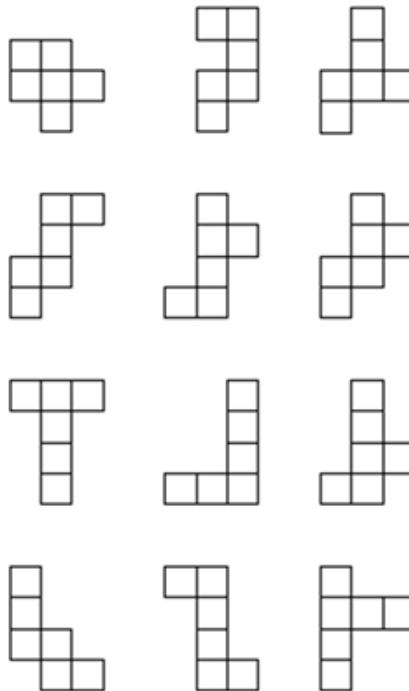
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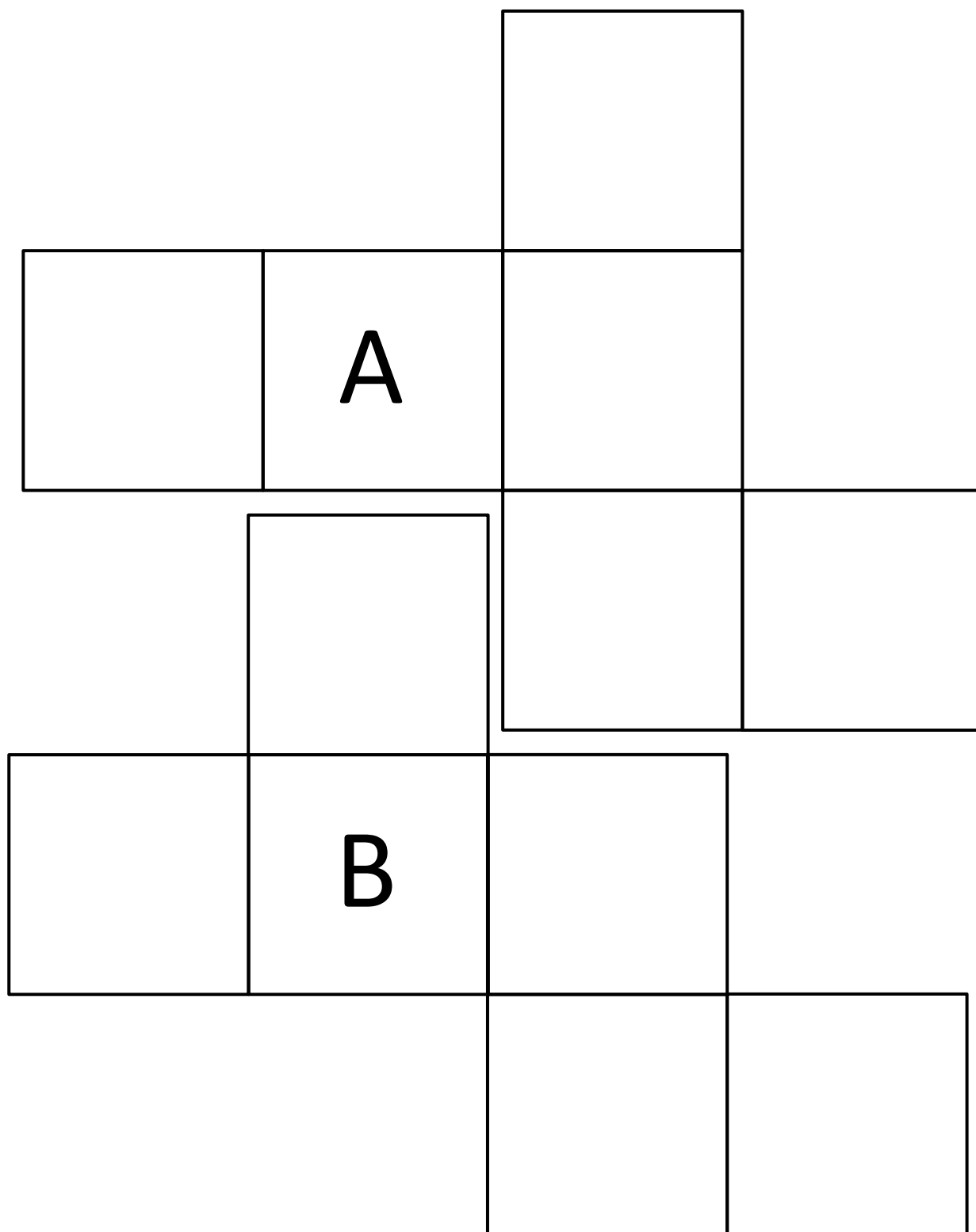
Date \_\_\_\_\_

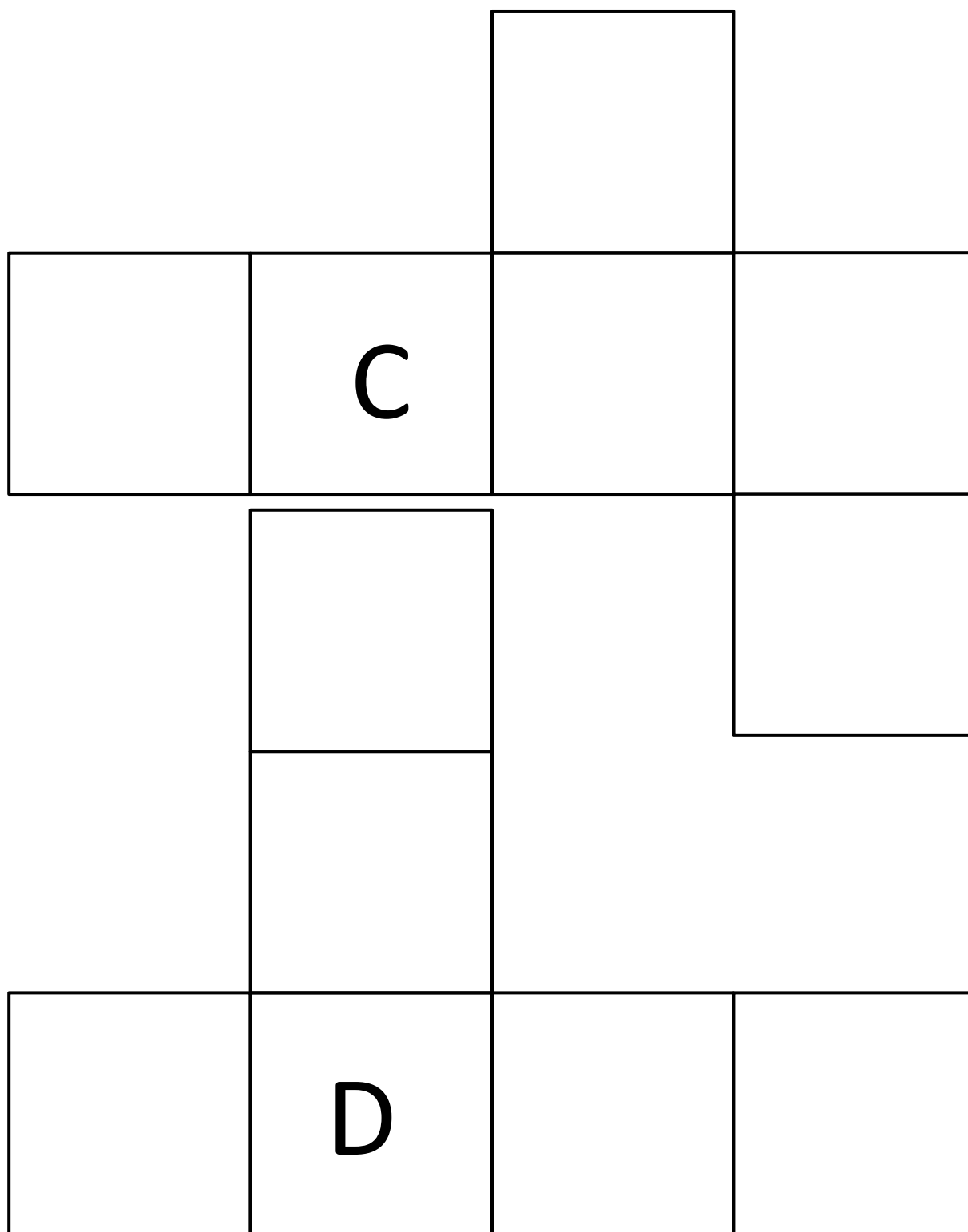
## Lesson 15: Representing Three-Dimensional Figures Using Nets

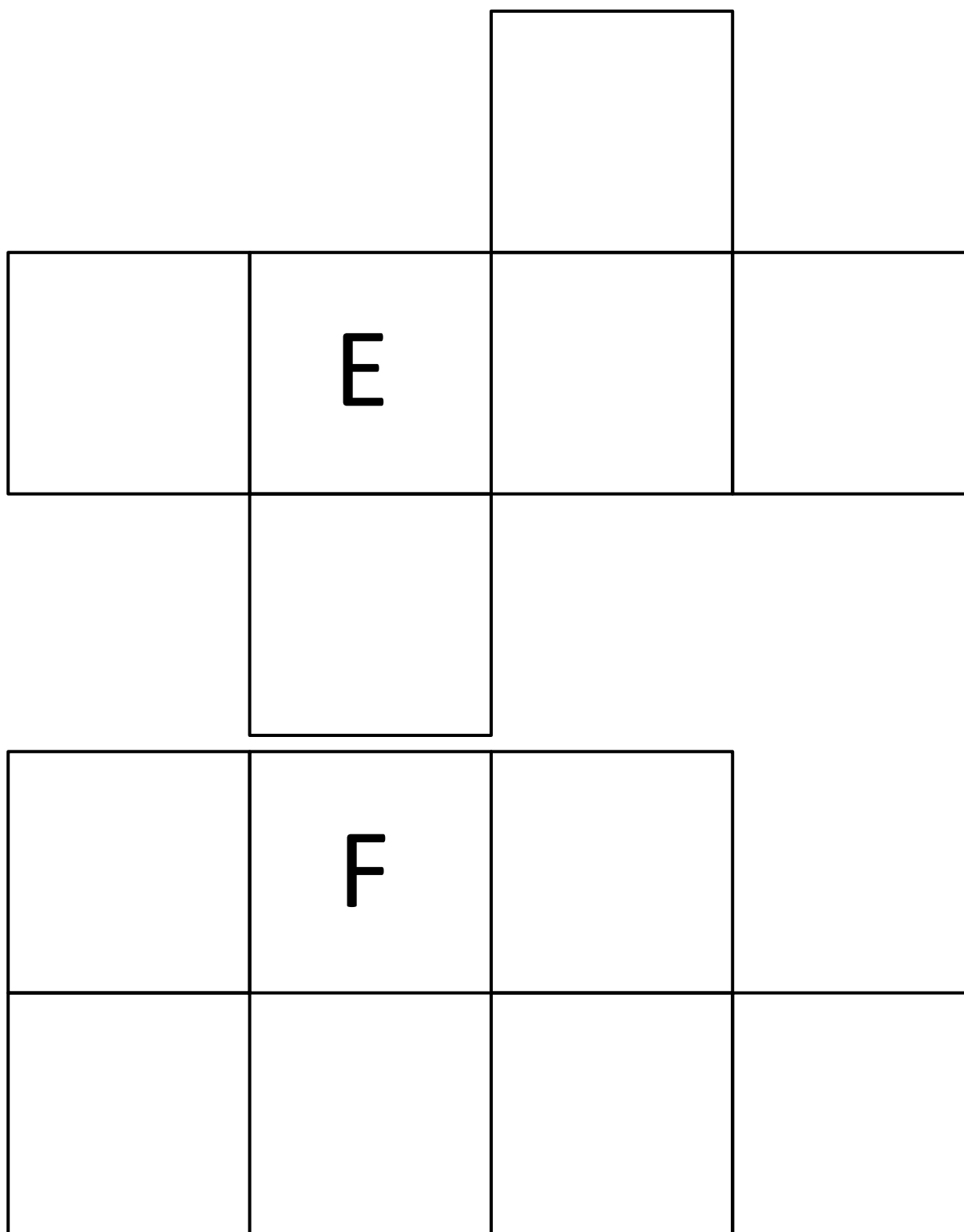
### Exit Ticket

1. What is a net? Describe it in your own words.
2. Which of the following will fold to make a cube? Explain how you know.

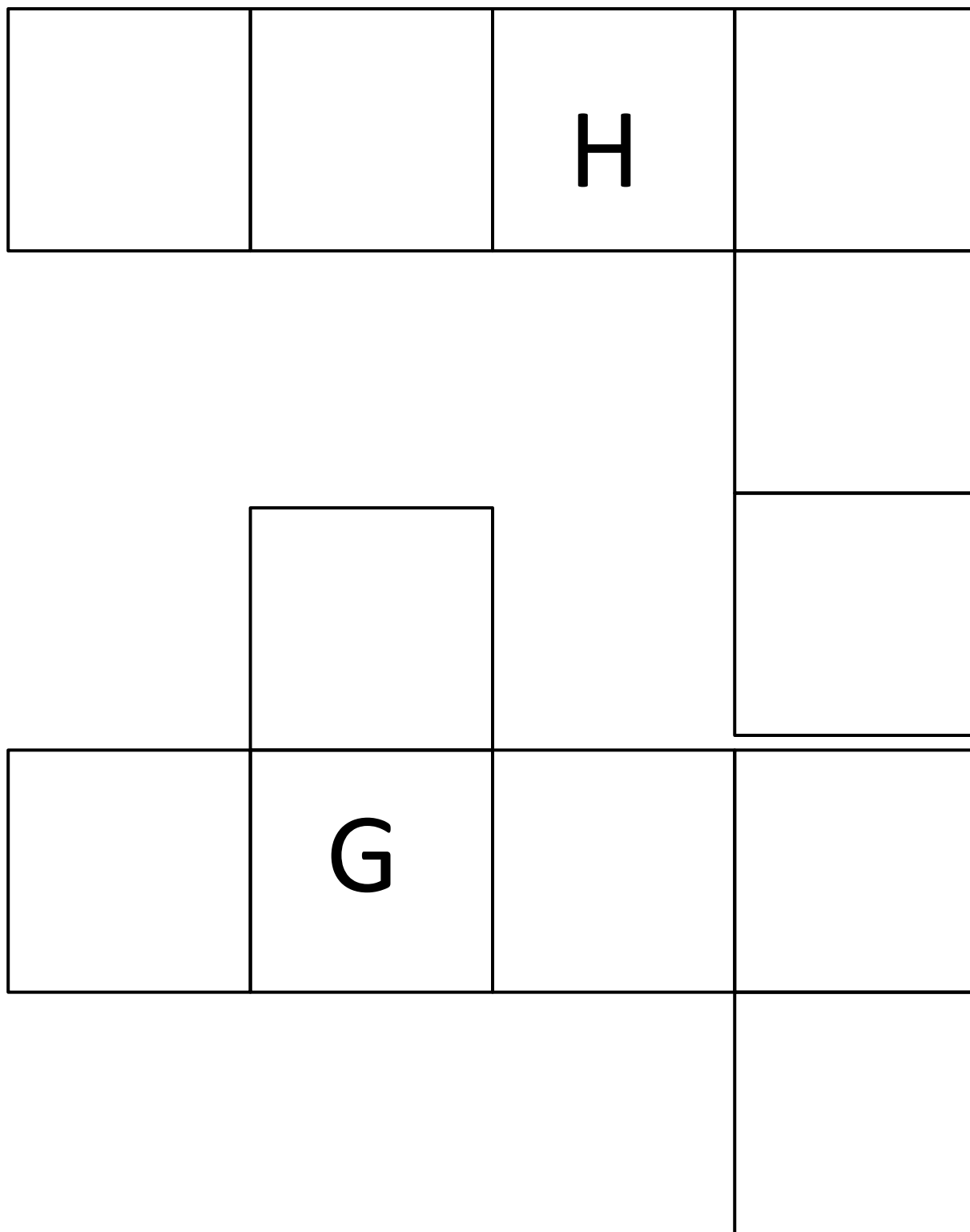


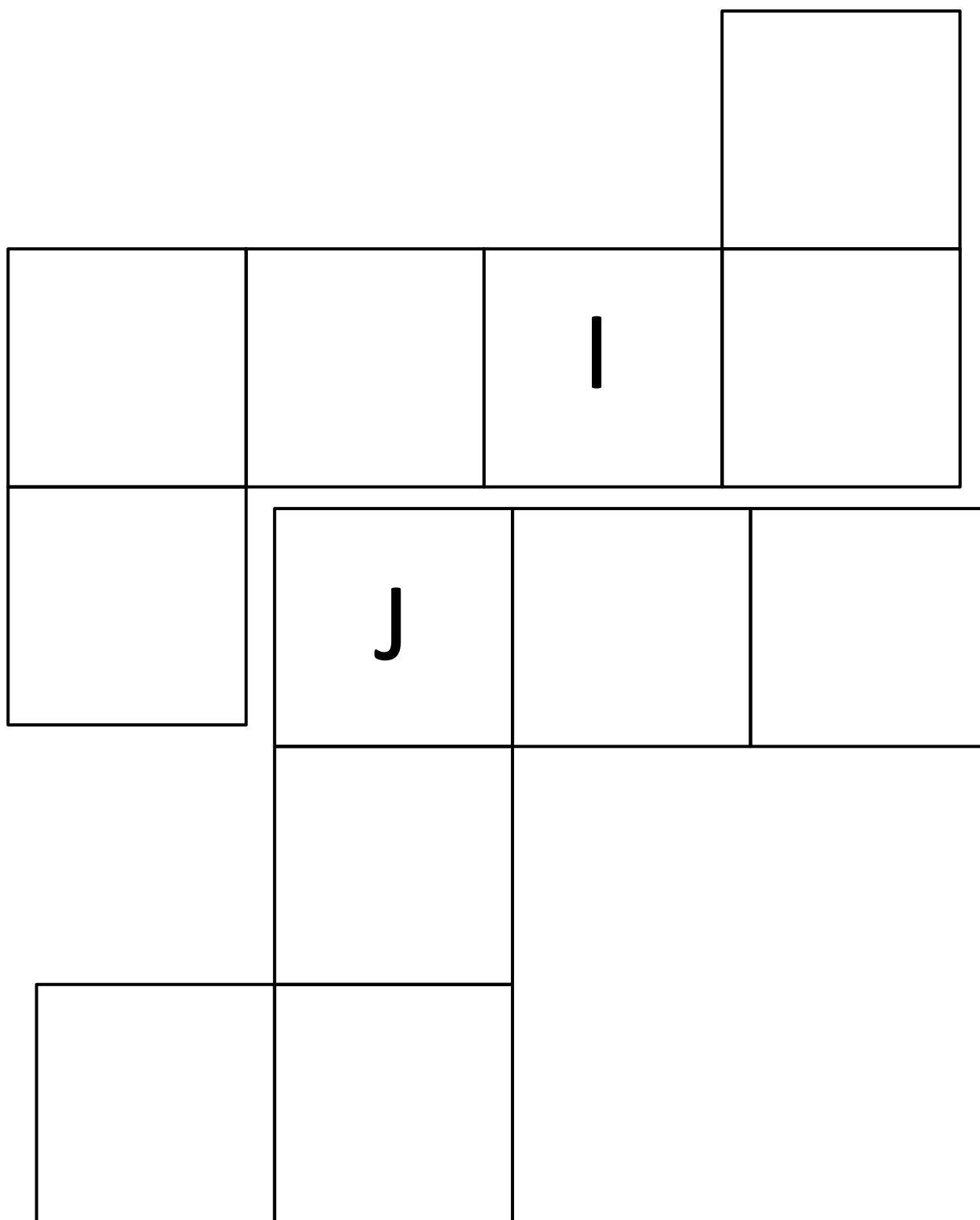


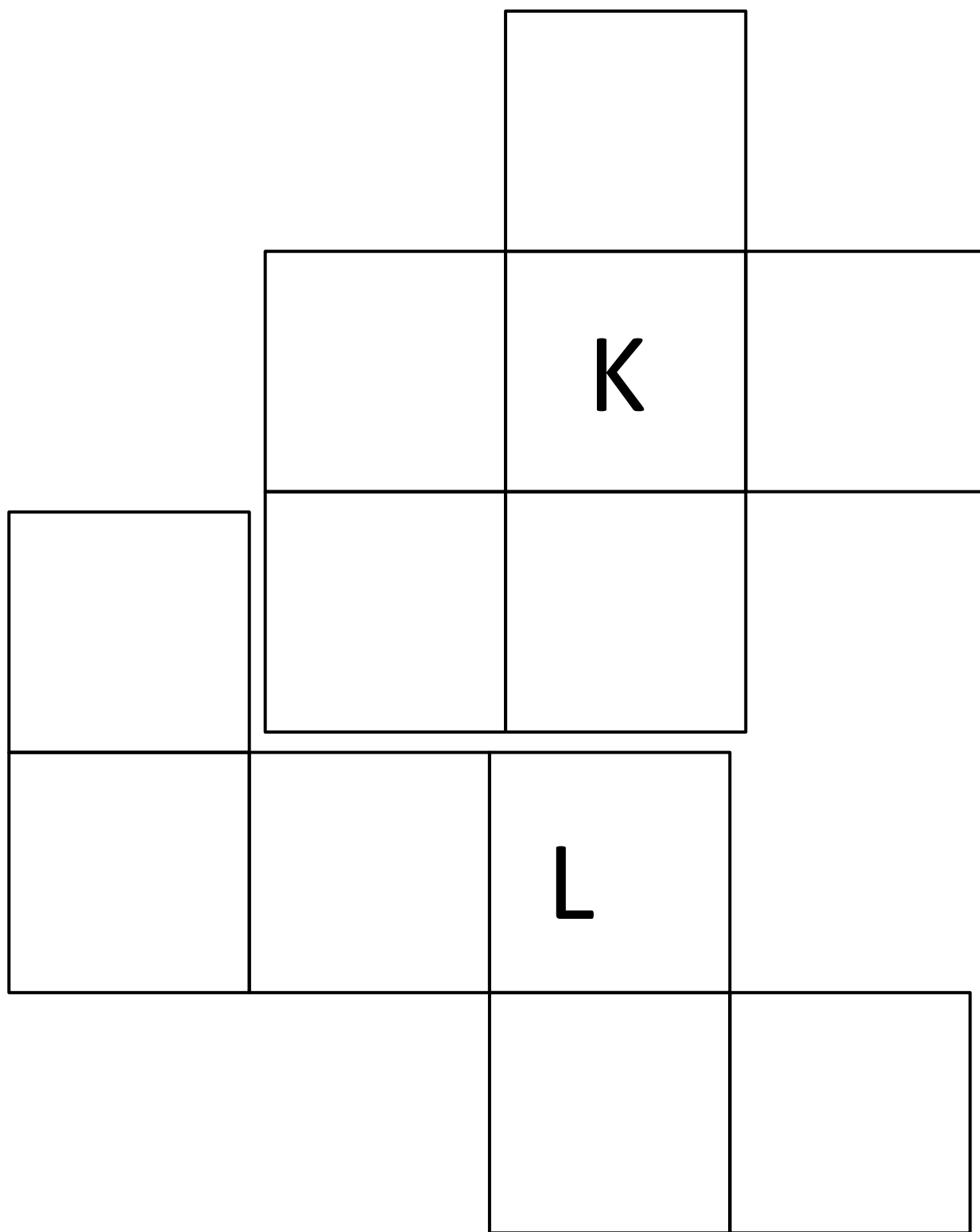


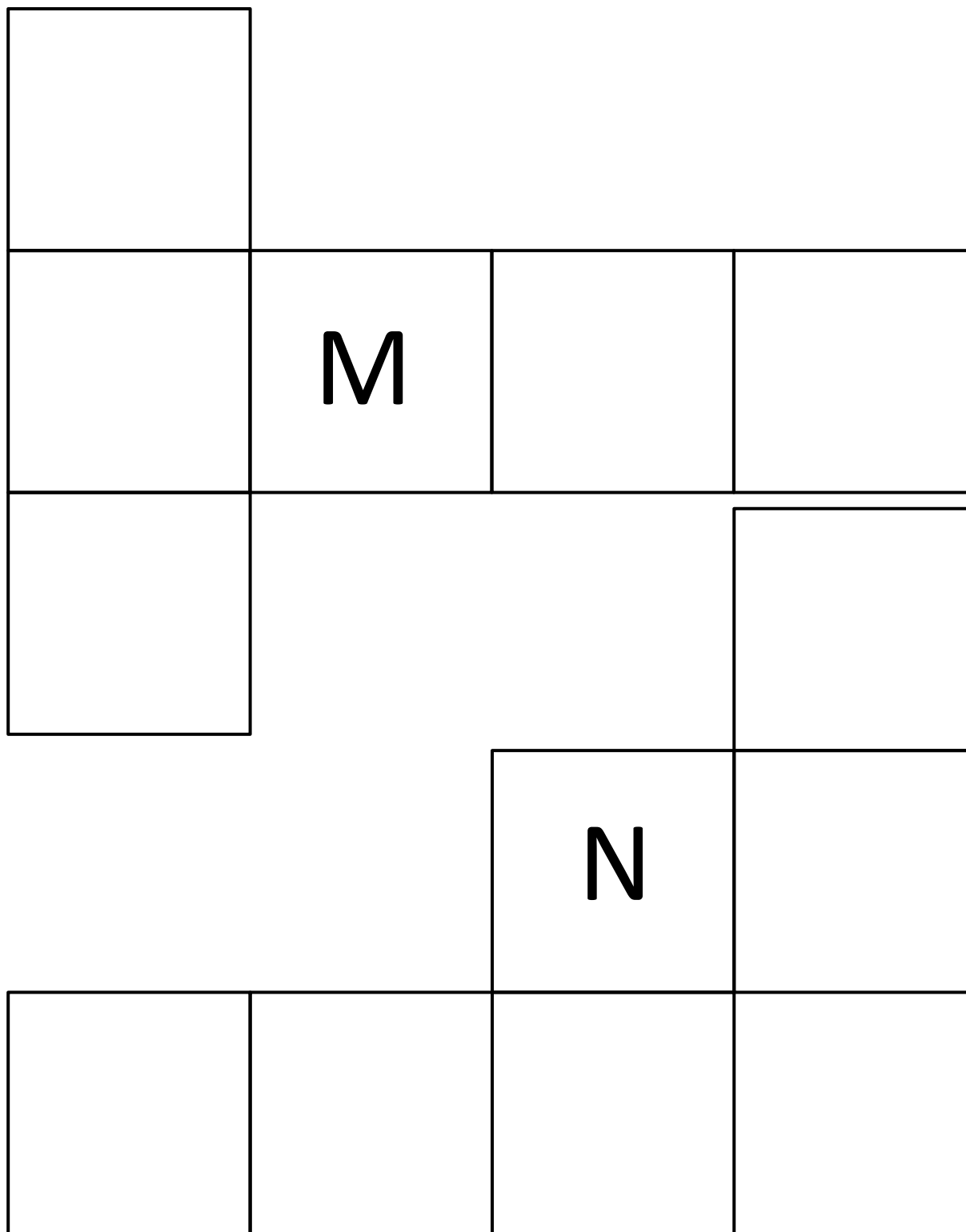


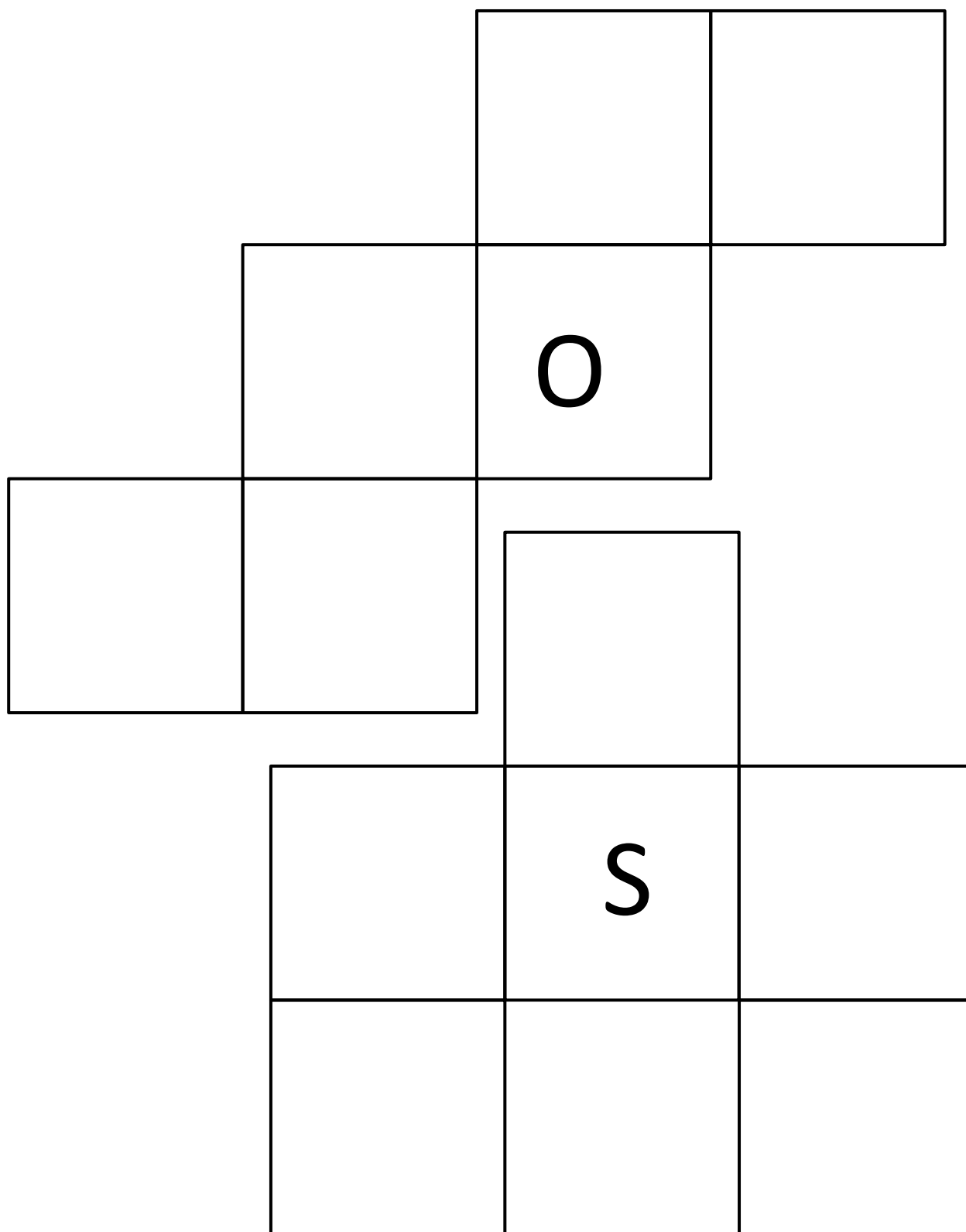


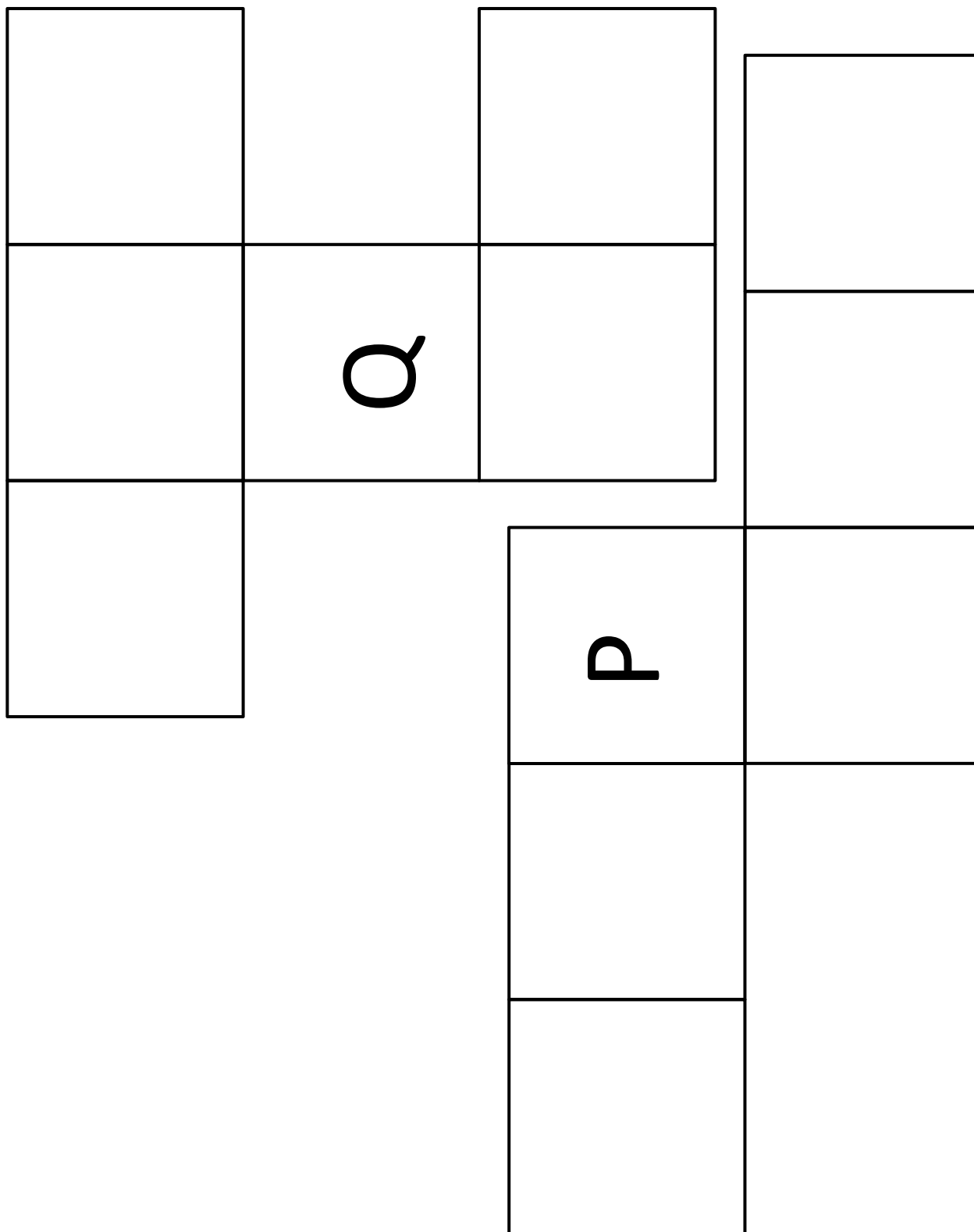


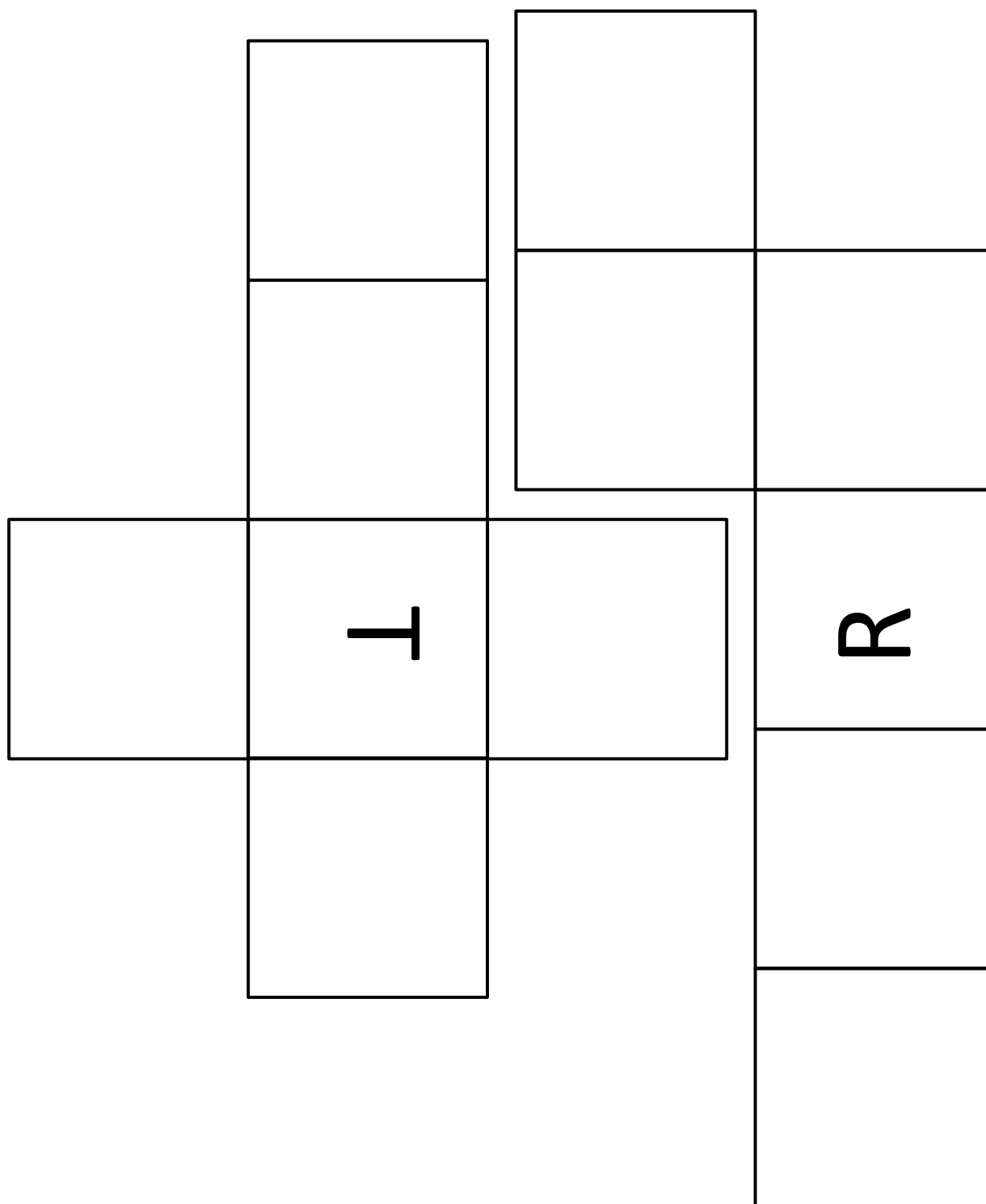


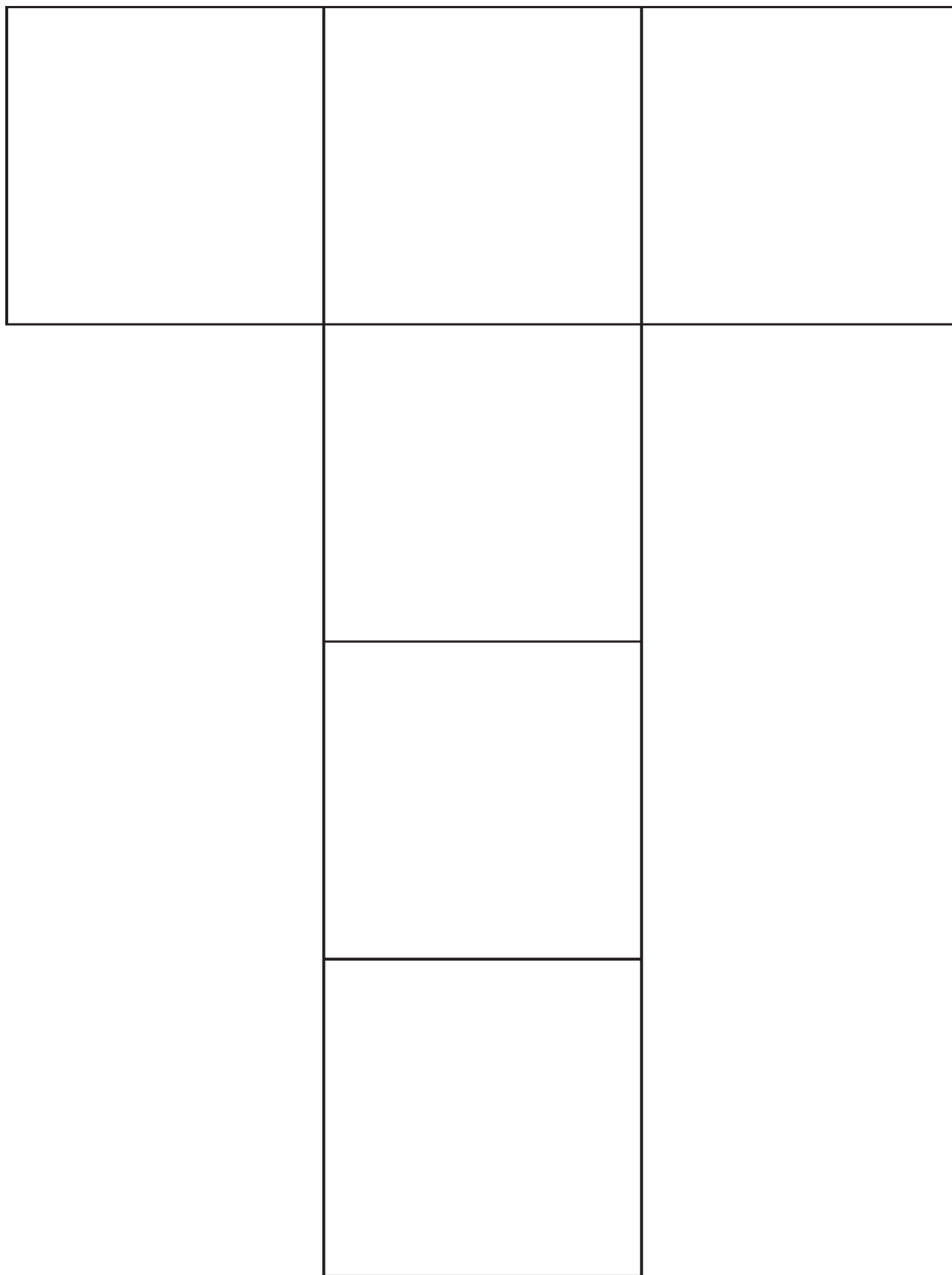




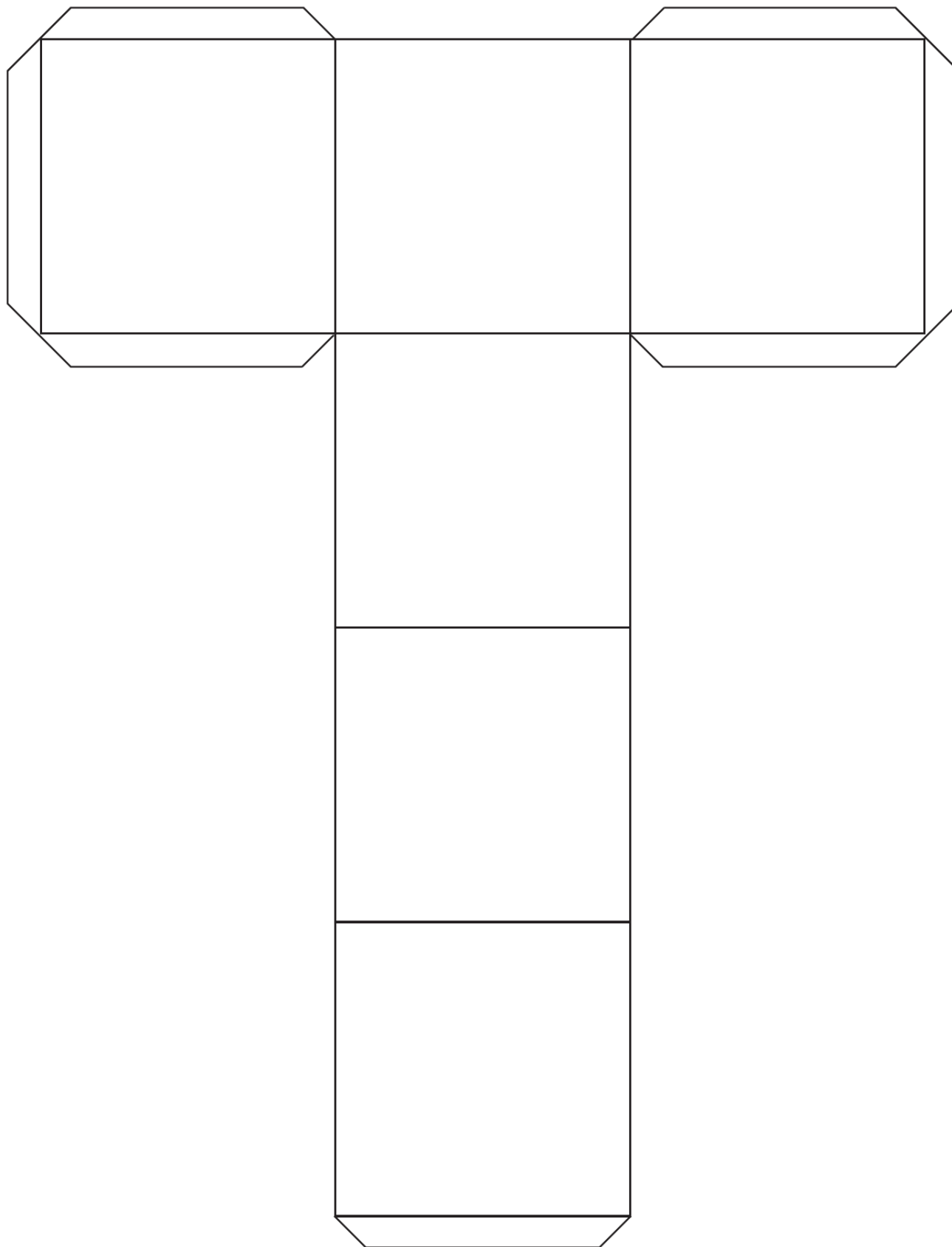




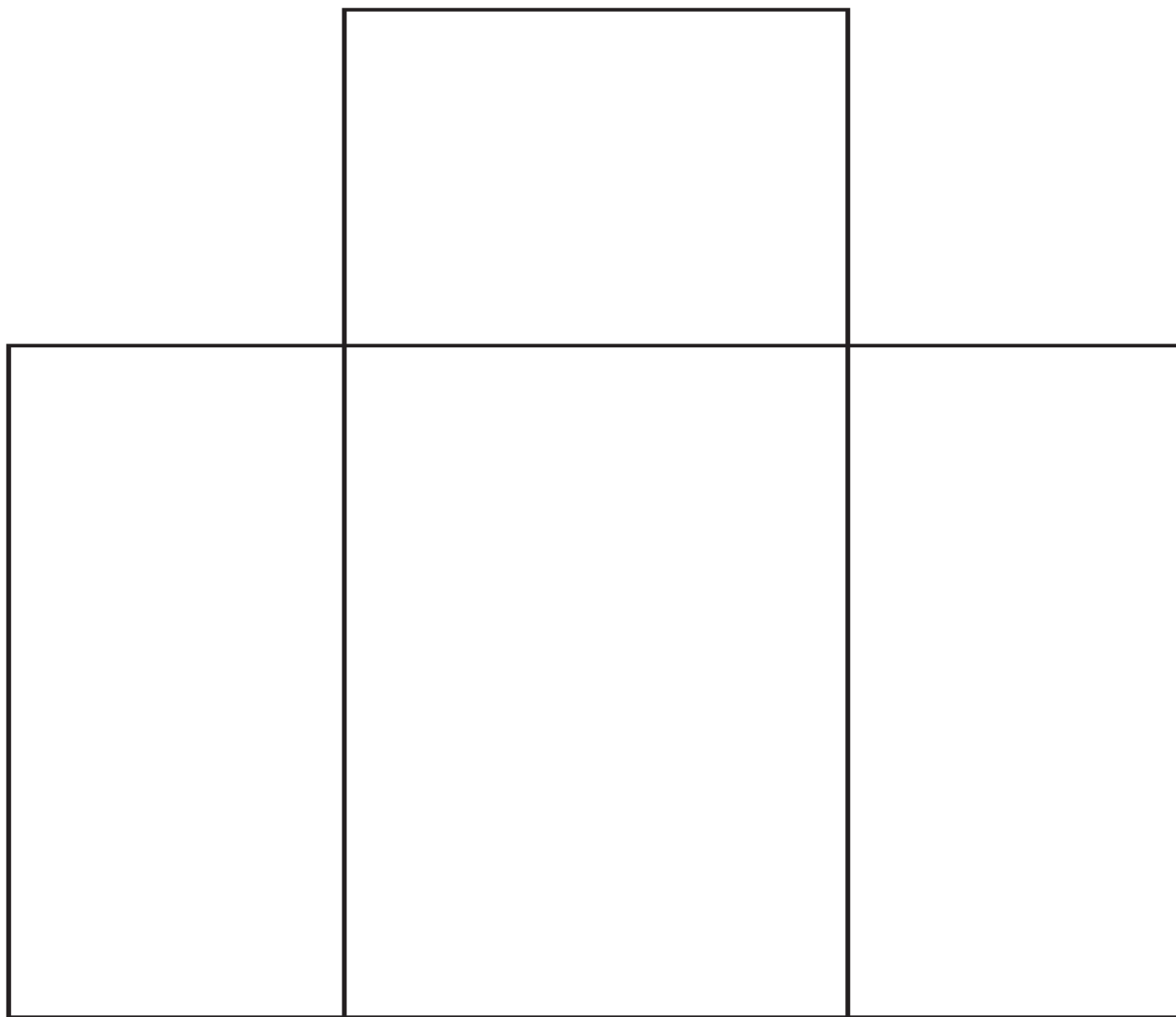




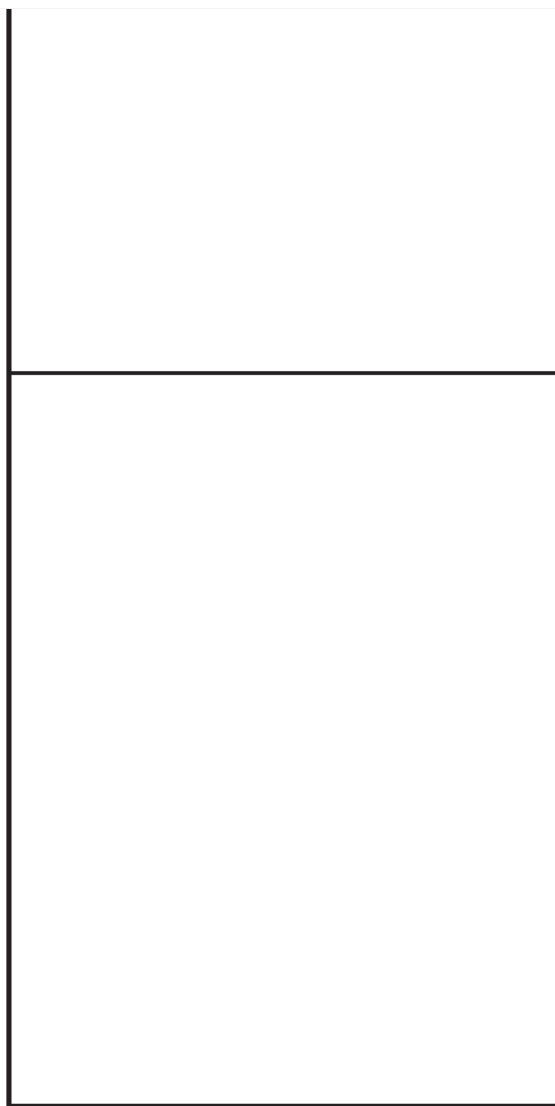




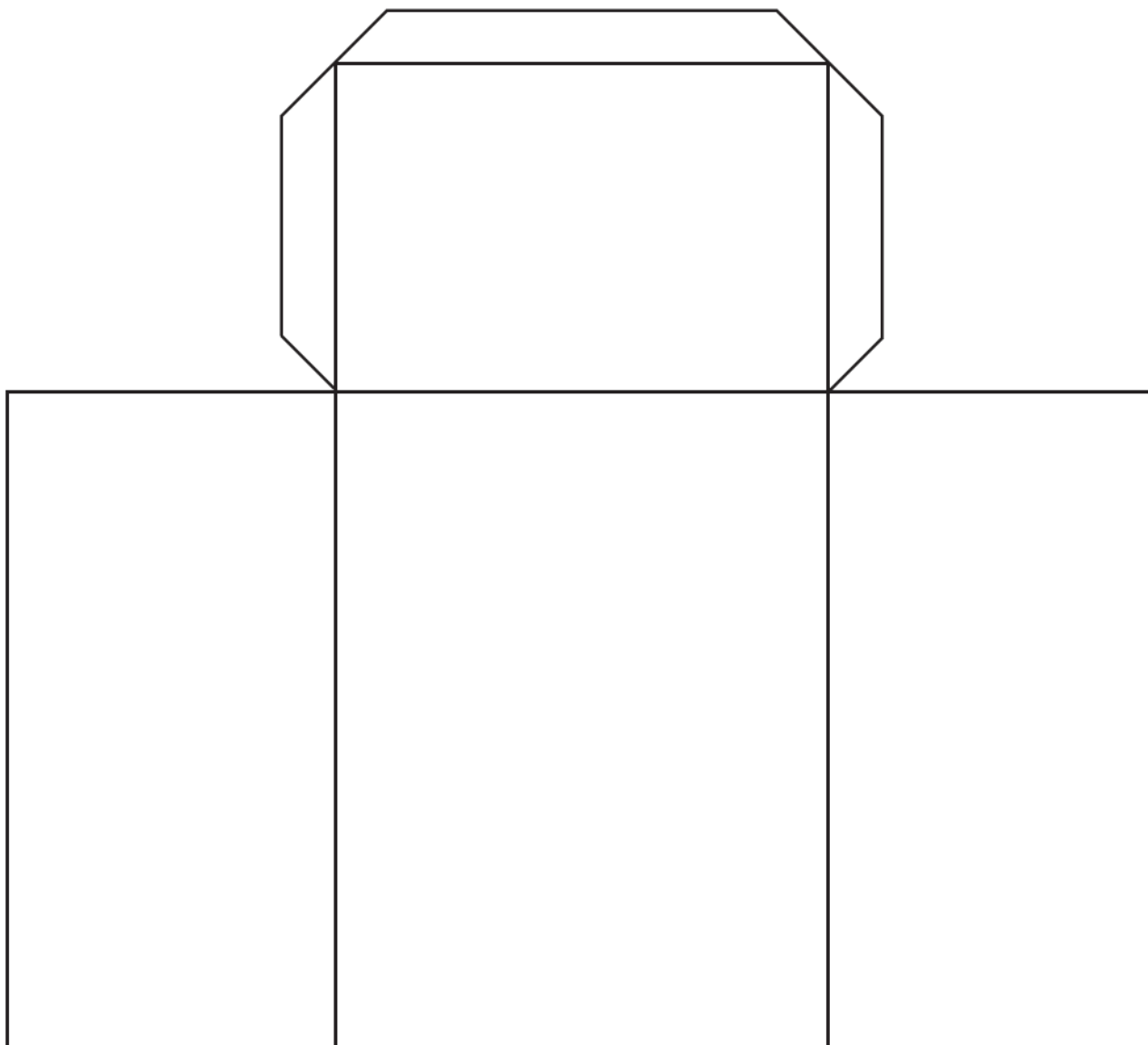
Part 1 of 2



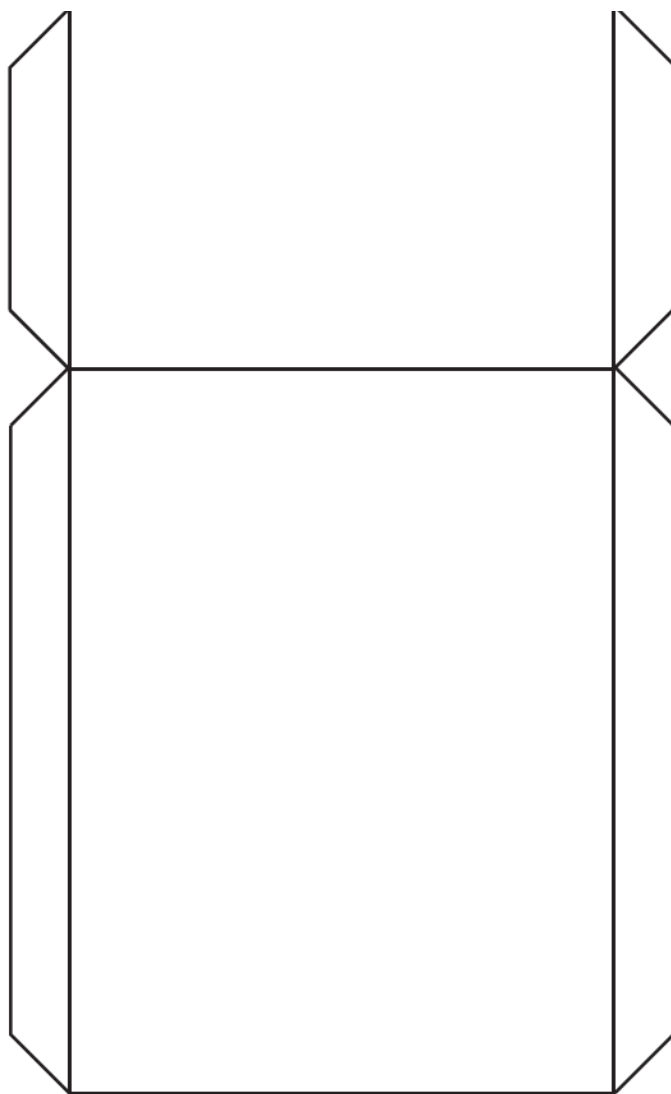
## Part 2 of 2

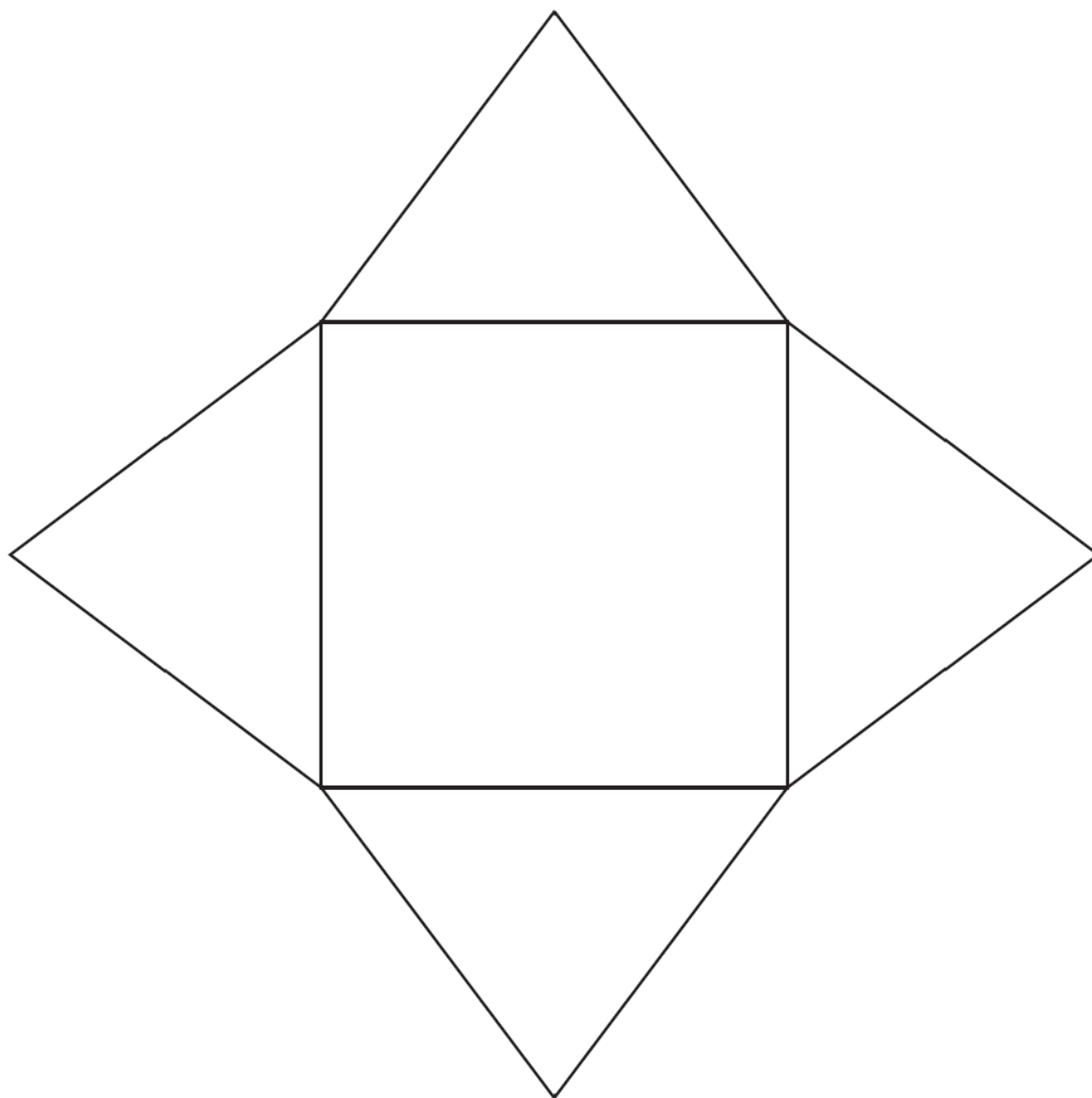


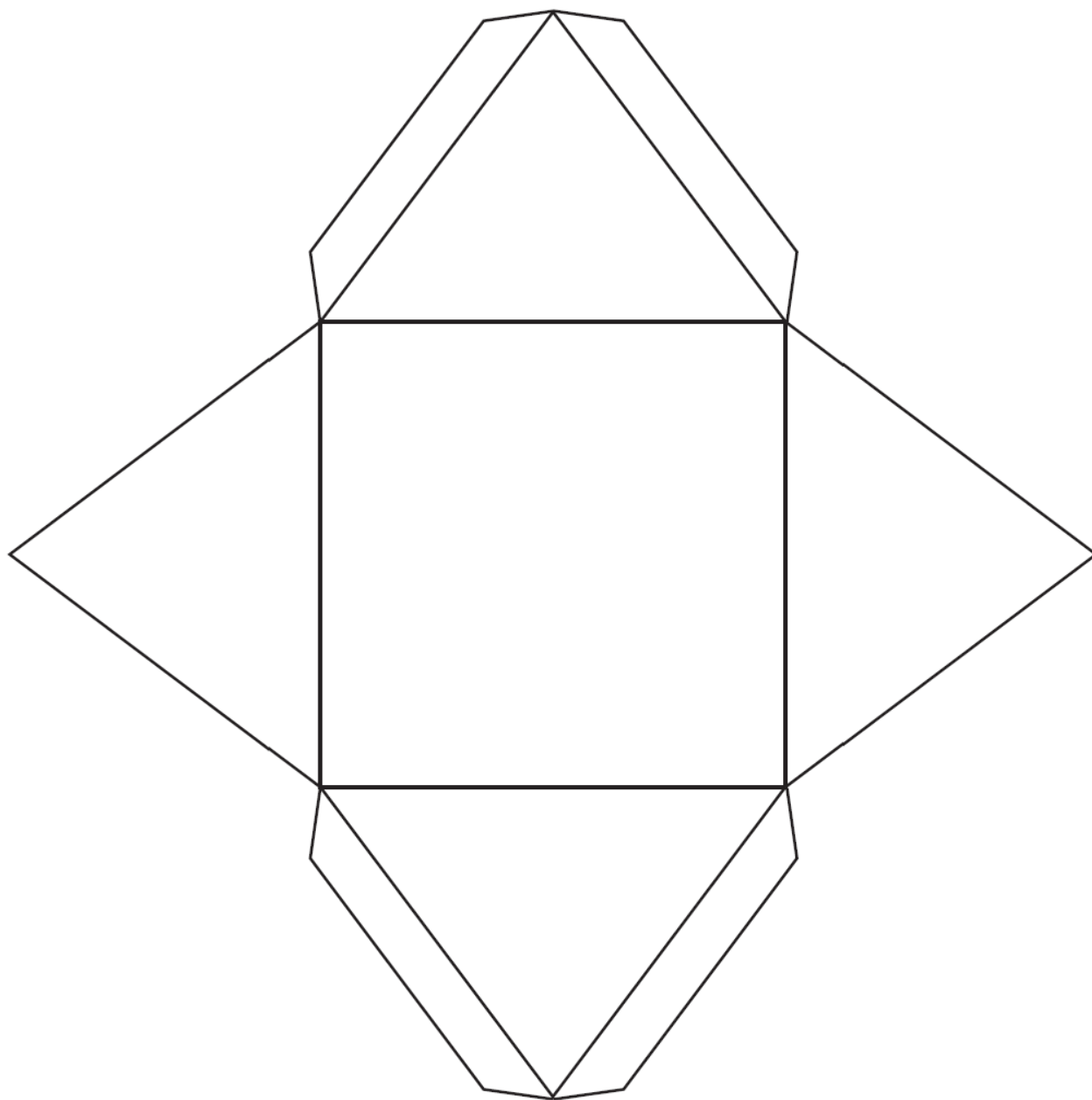
Part 1 of 2

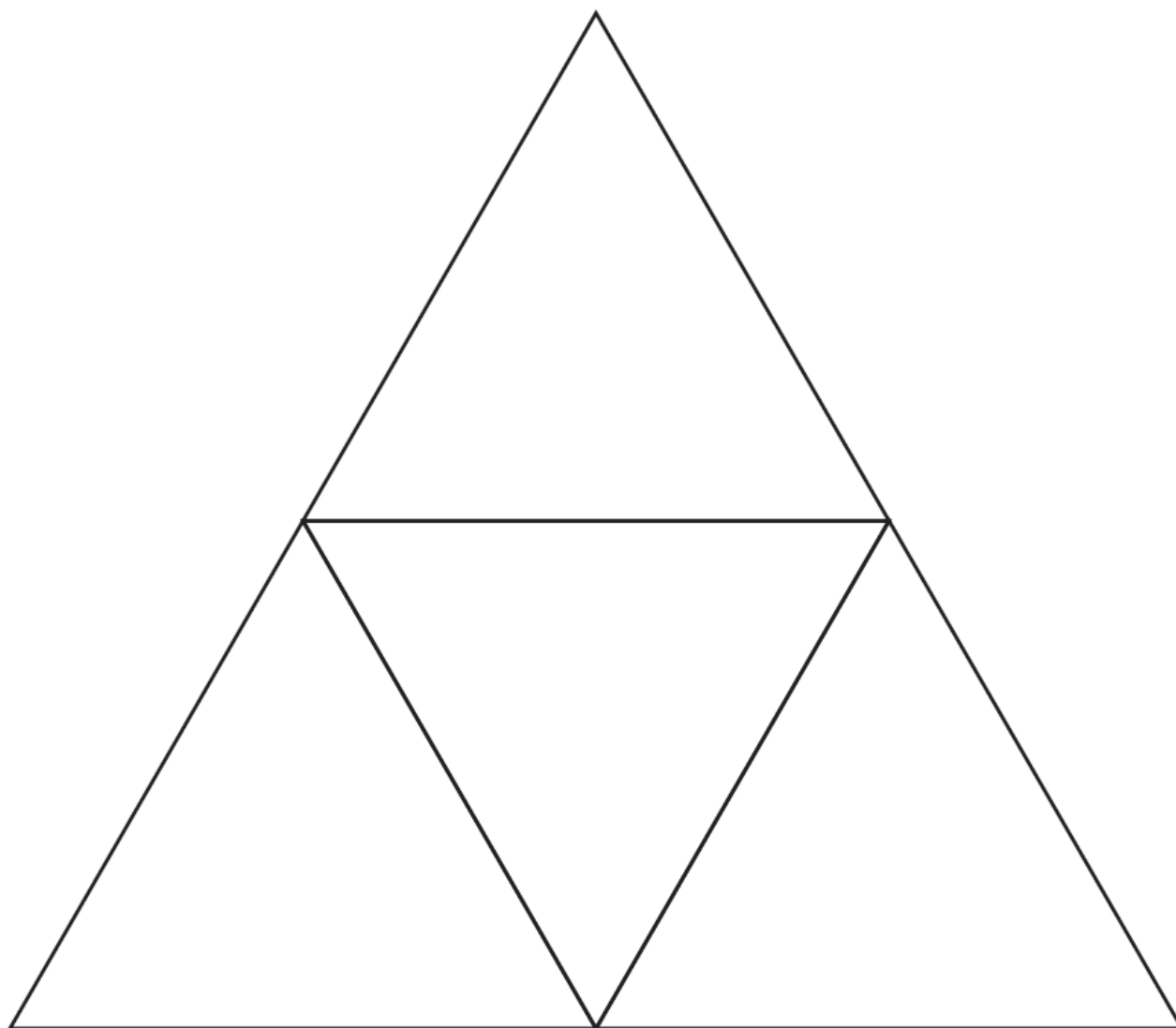


Part 2 of 2

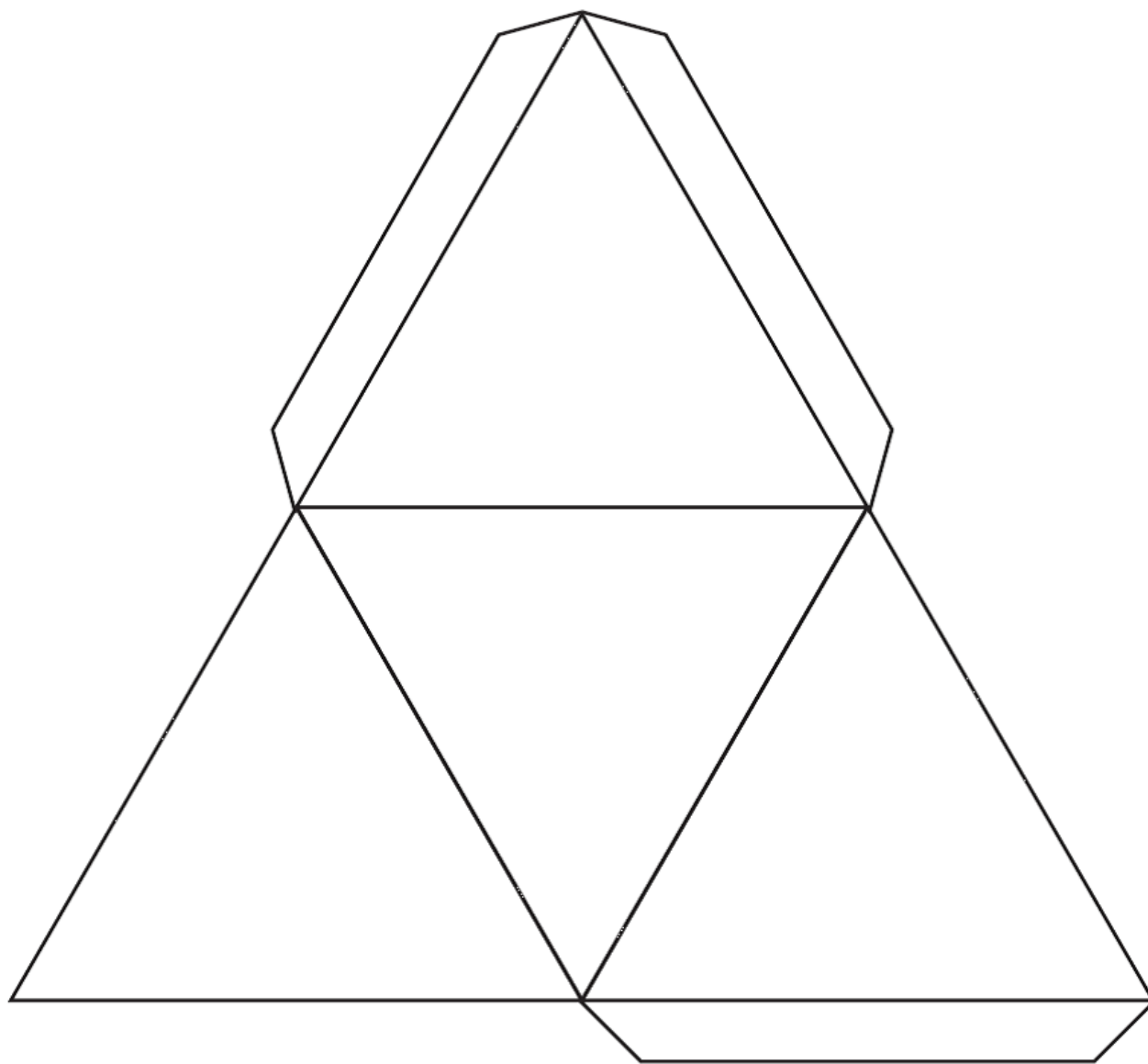


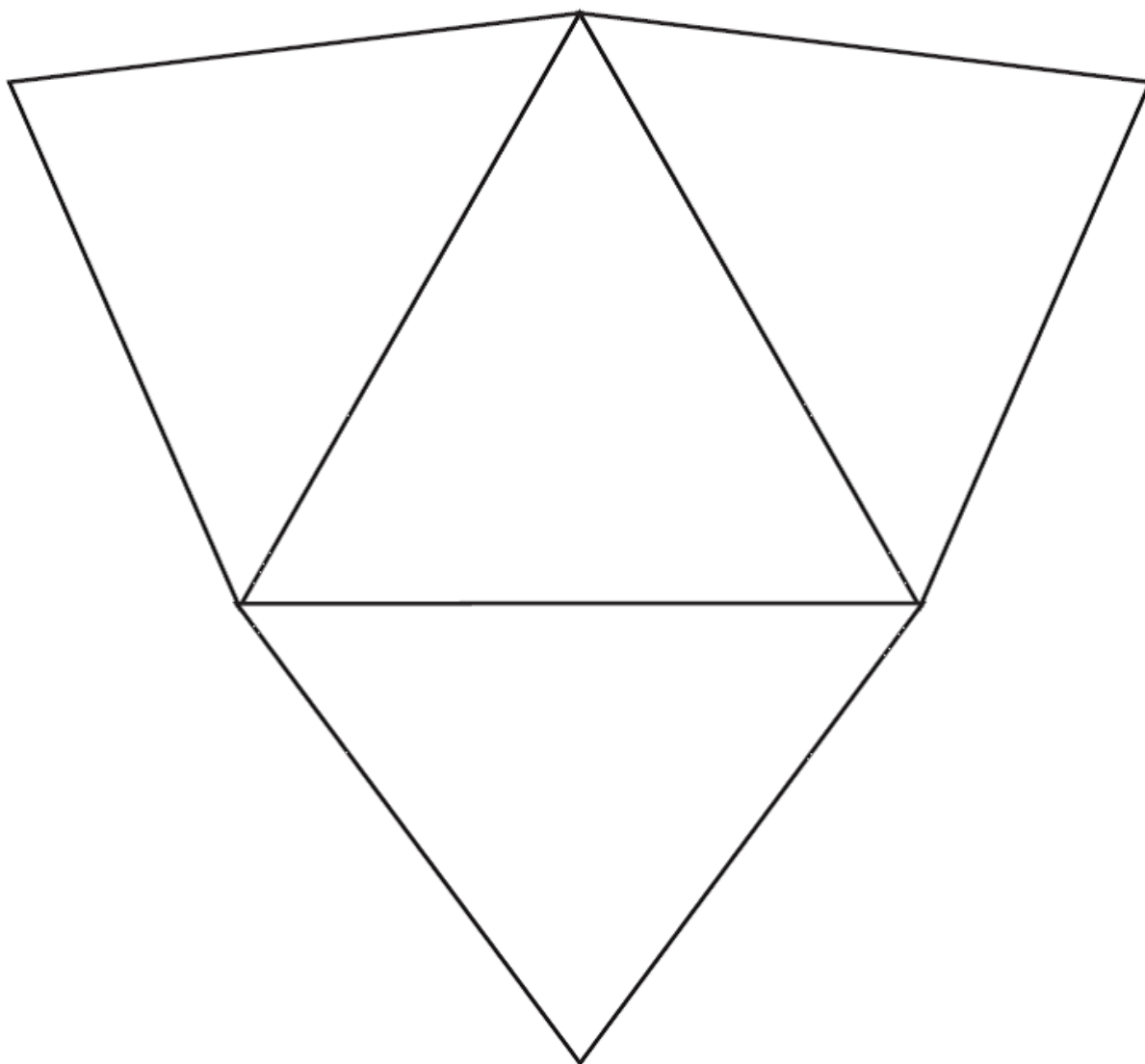


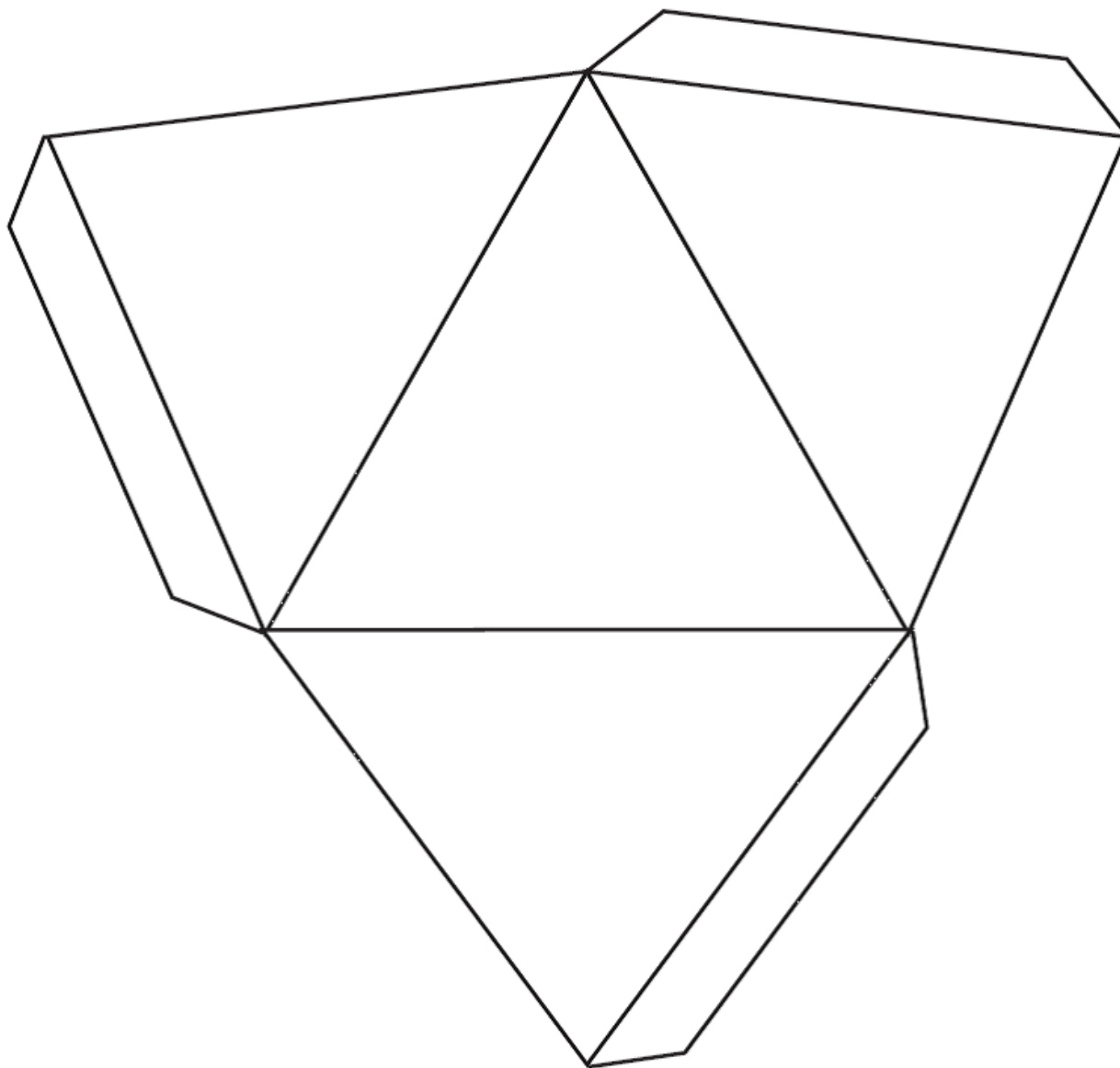


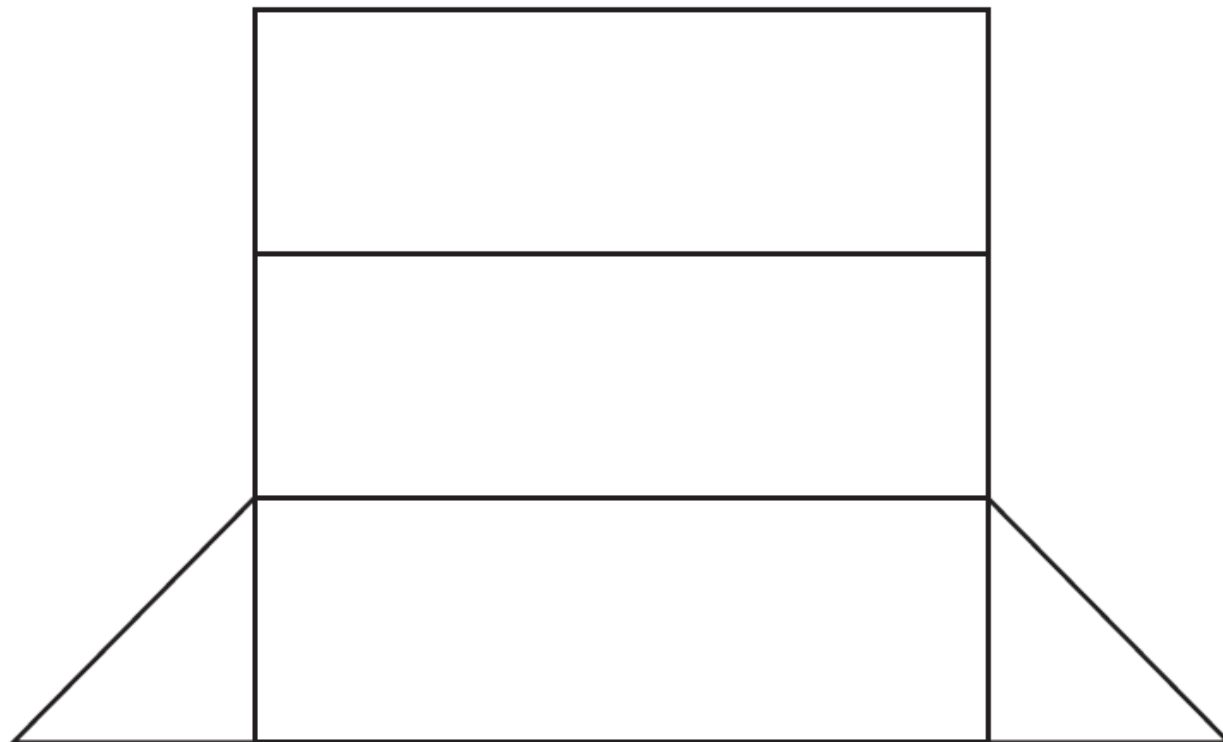


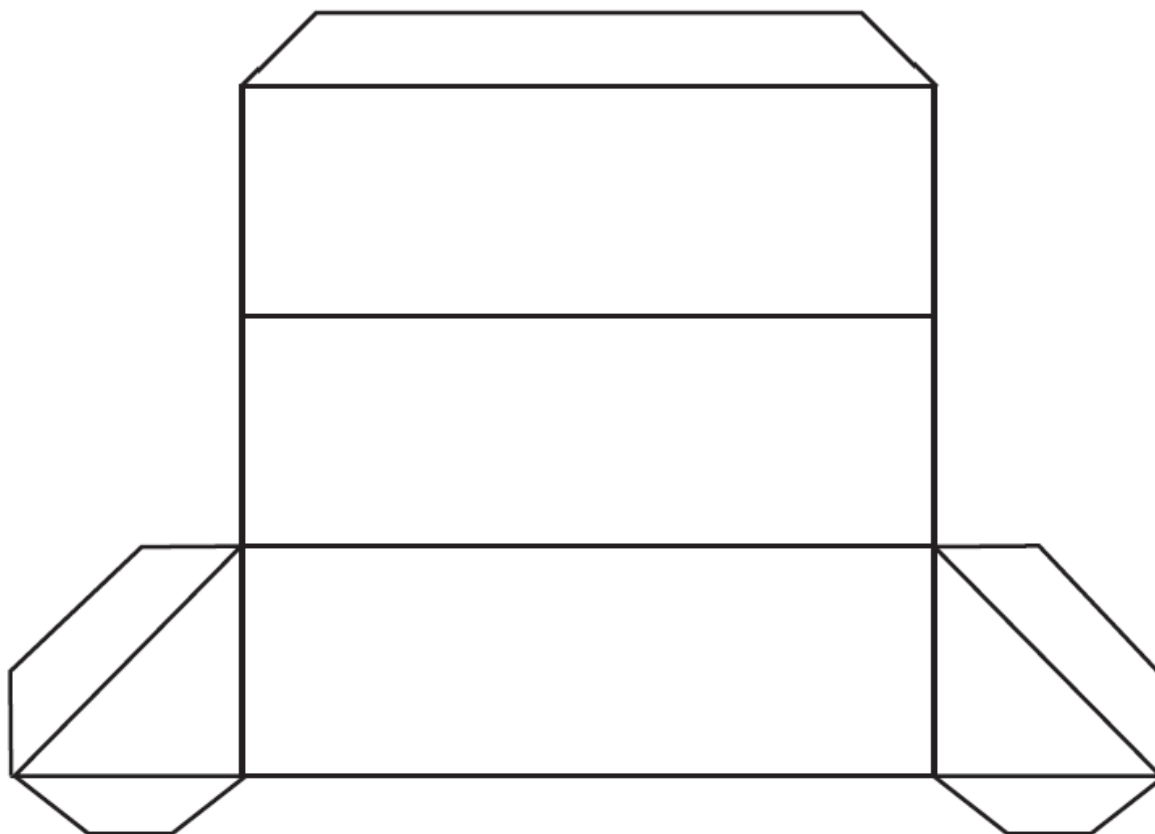


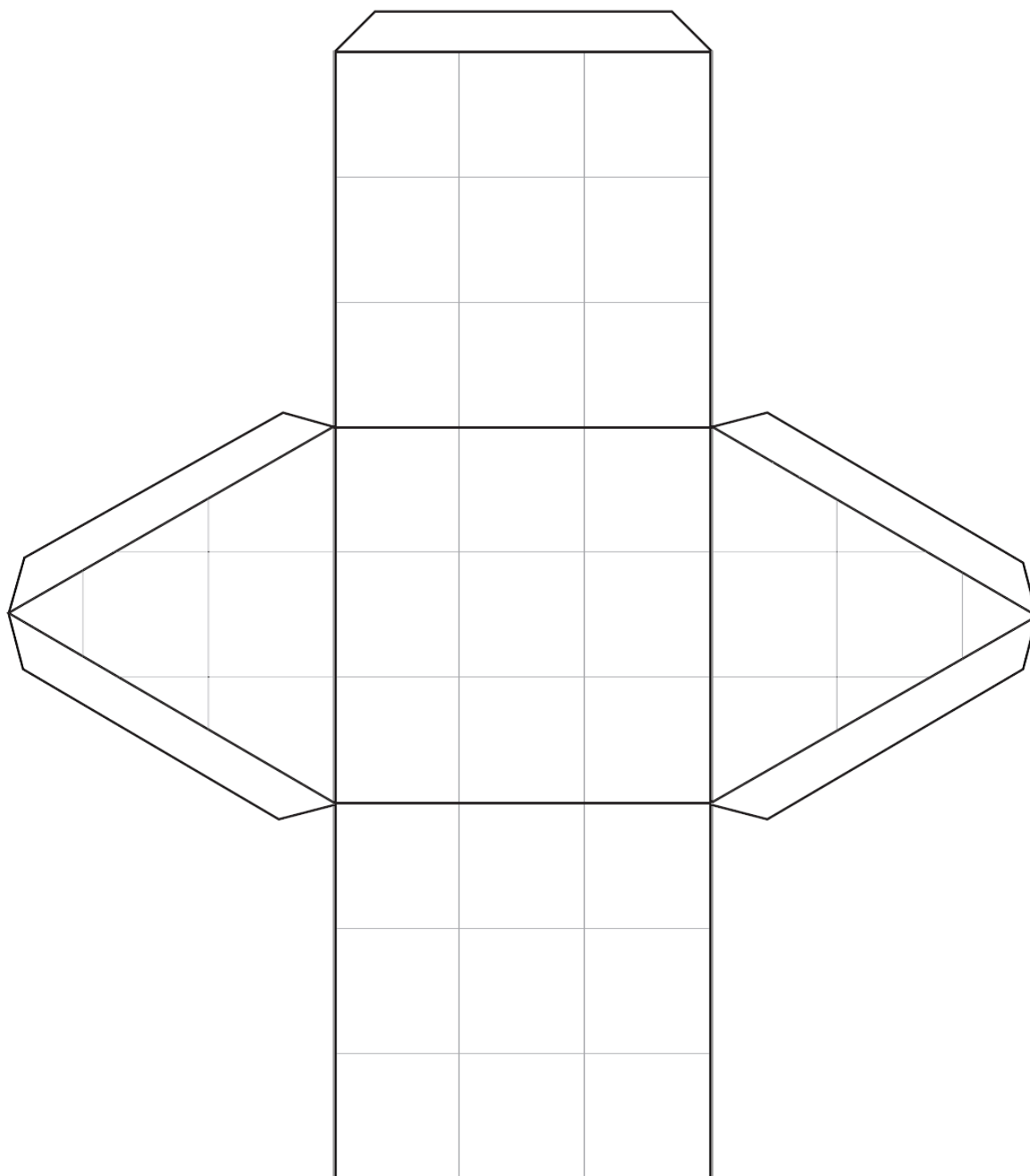












Name \_\_\_\_\_

Date \_\_\_\_\_

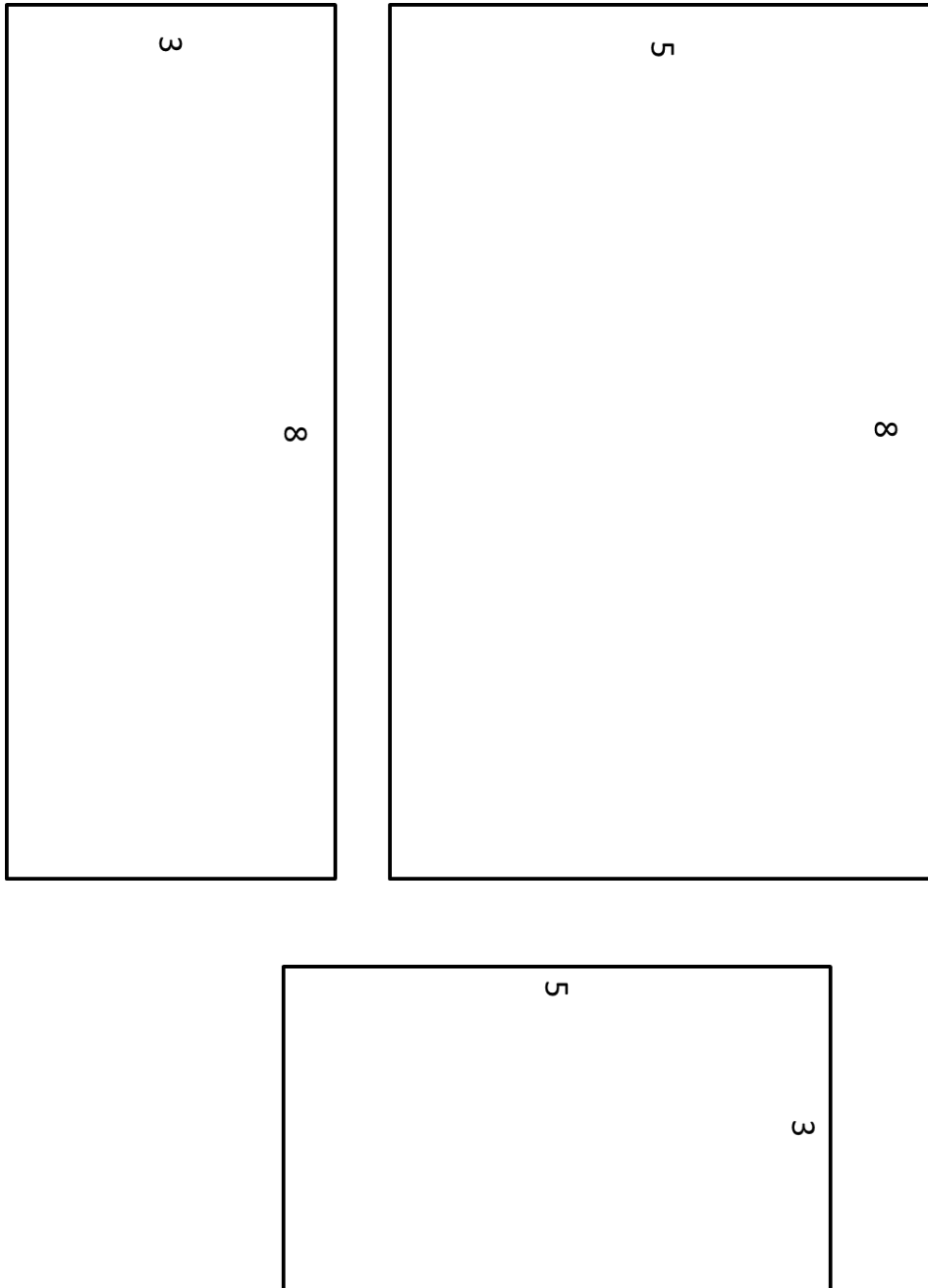
## Lesson 16: Constructing Nets

### Exit Ticket

Sketch and label a net of this pizza box. It has a square top that measures 16 inches on a side, and the height is 2 inches. Treat the box as a prism, without counting the interior flaps that a pizza box usually has.

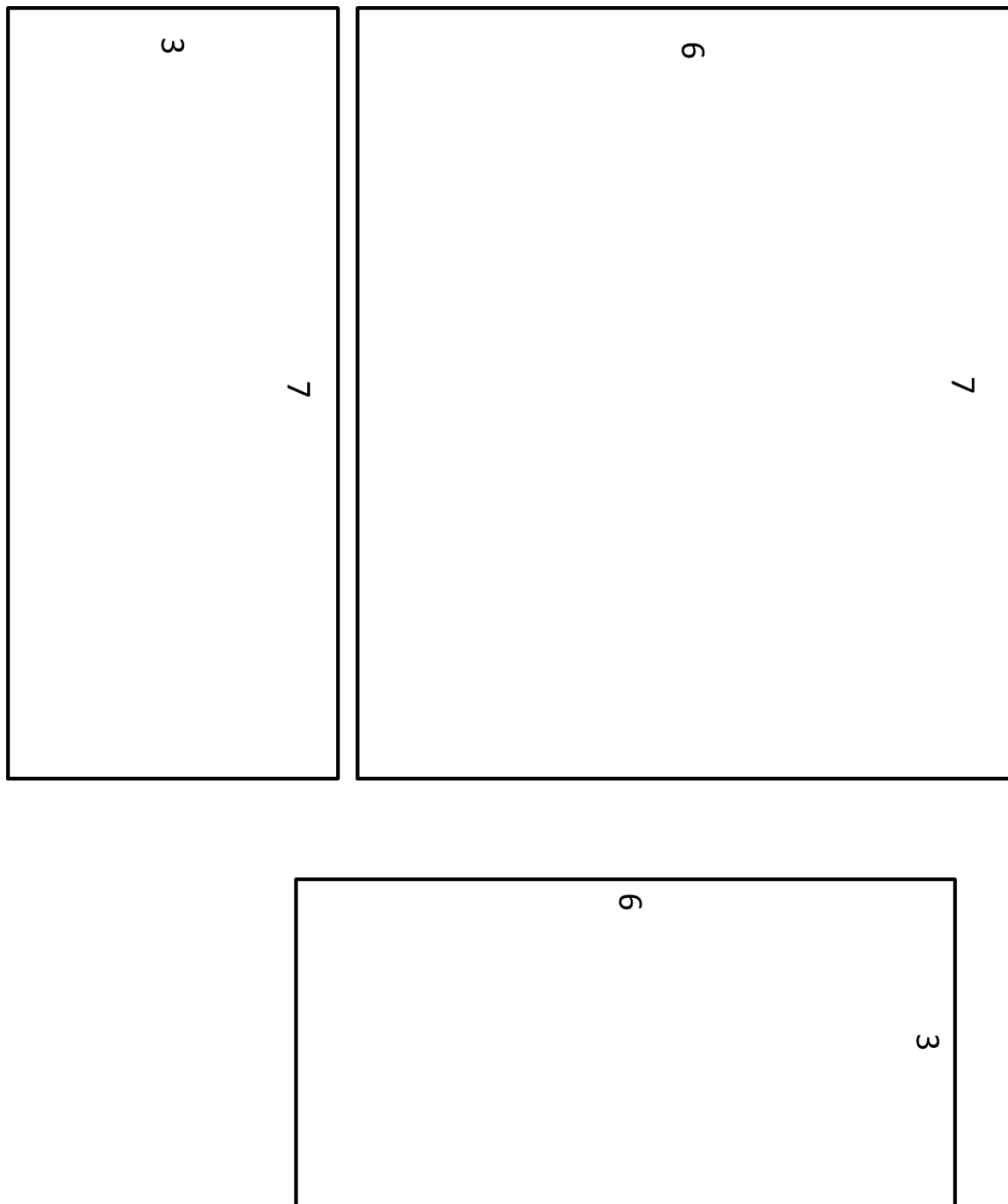


## Rectangles for Opening Exercise

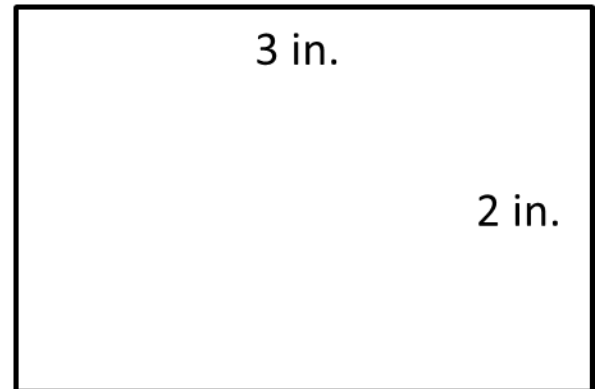
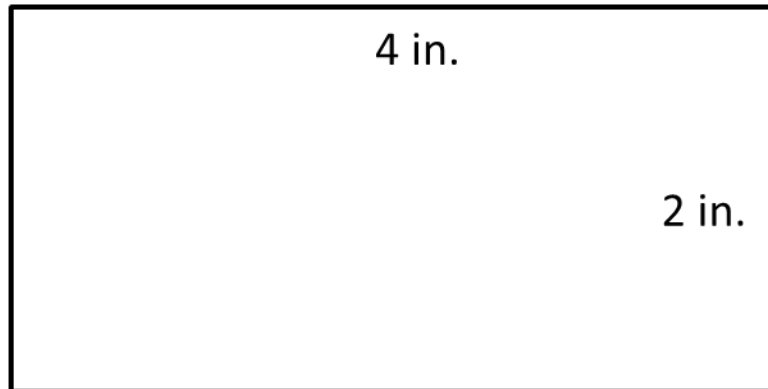
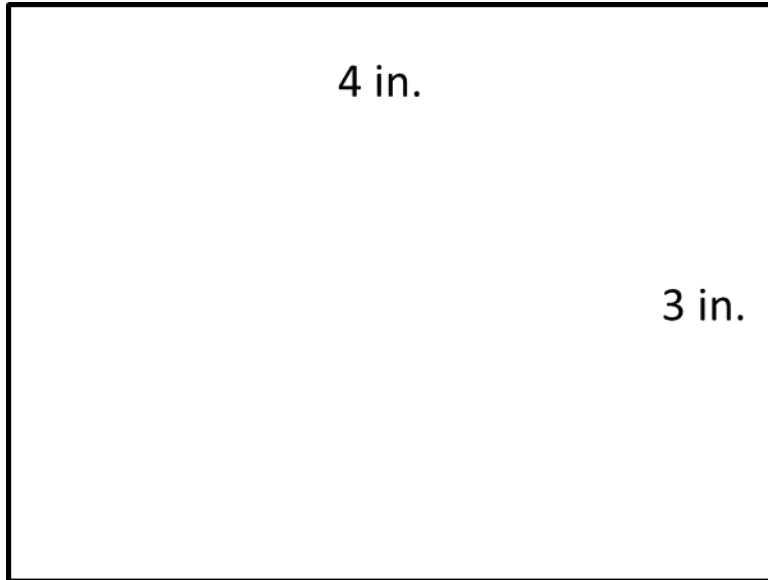




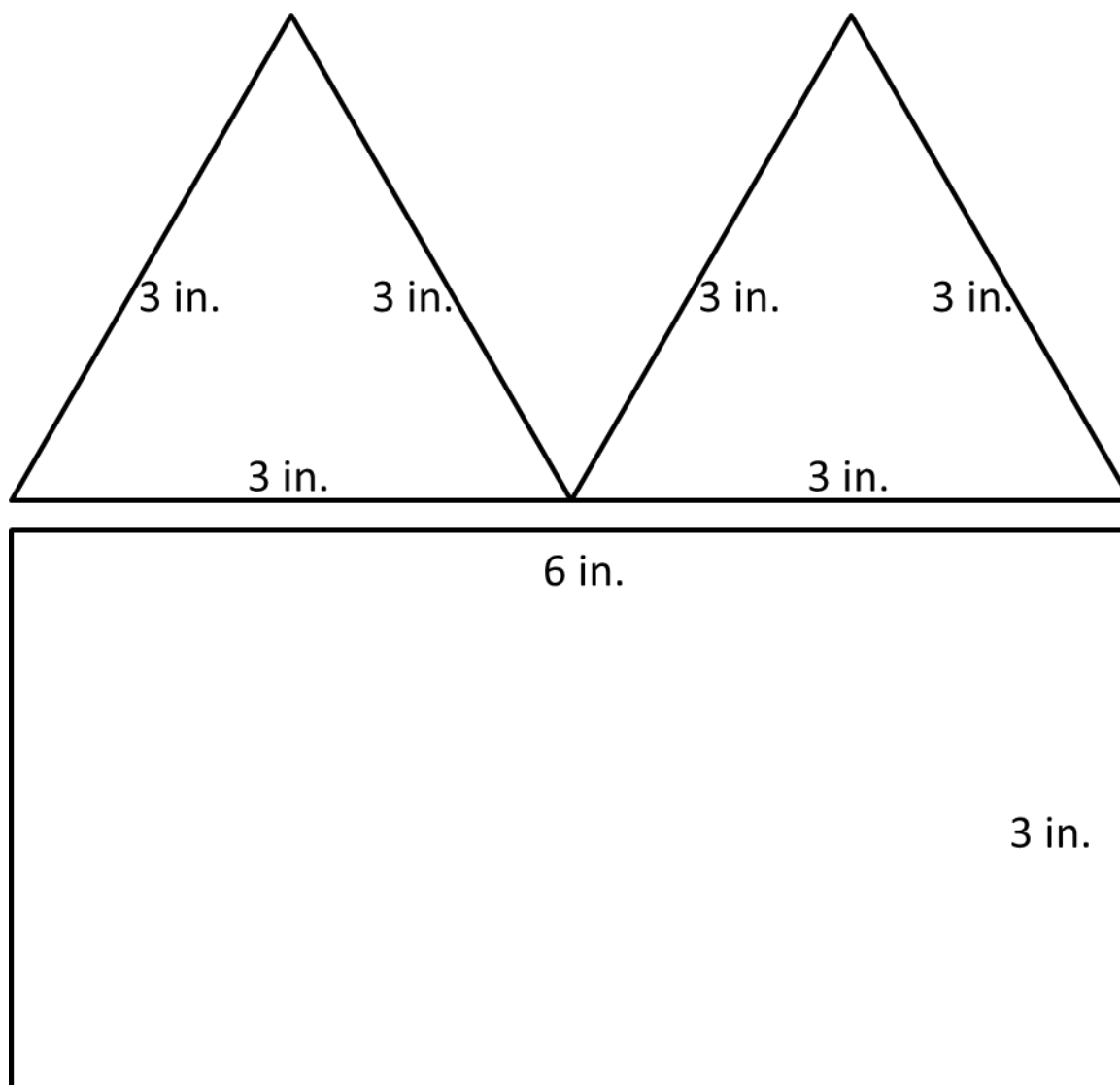
Rectangles for Exercise 1, part (a)



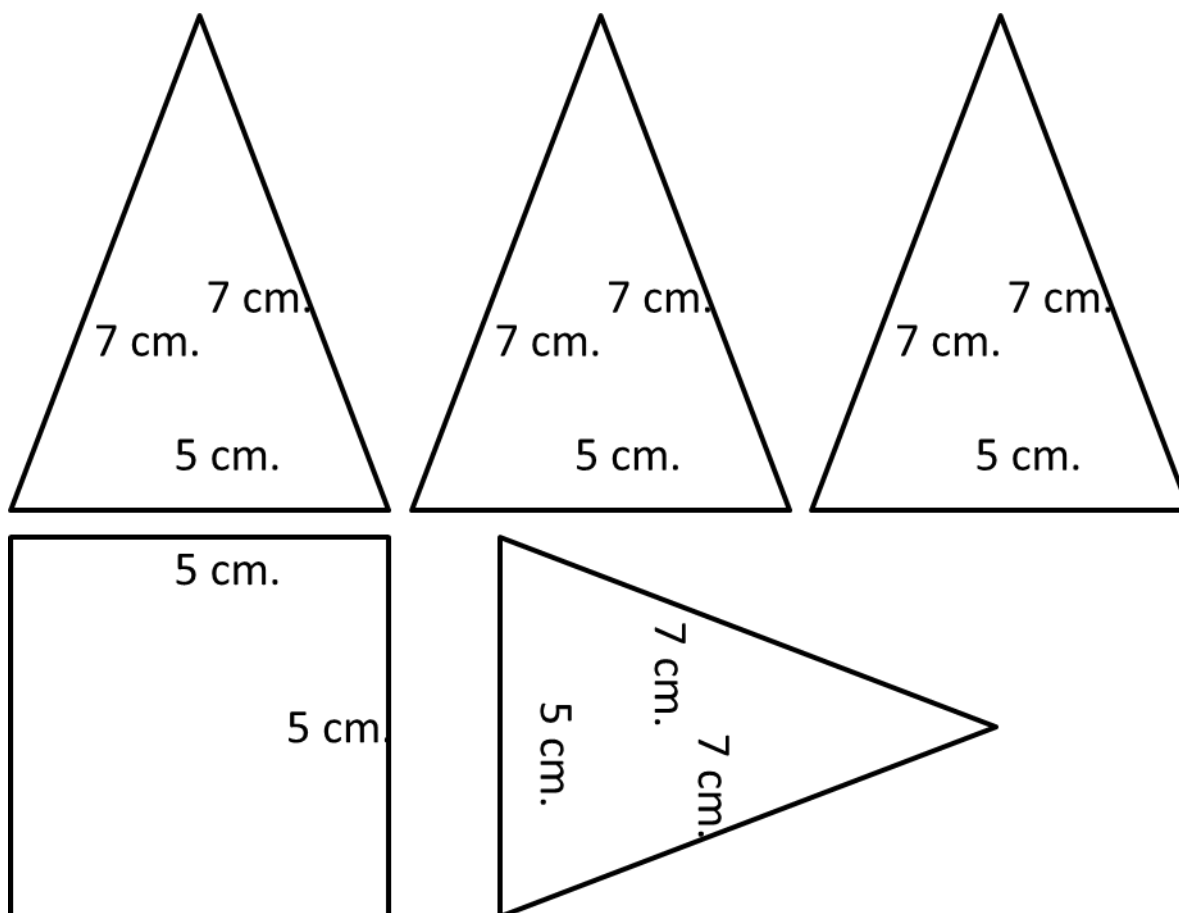
Rectangles for Exercise 1, part (b)



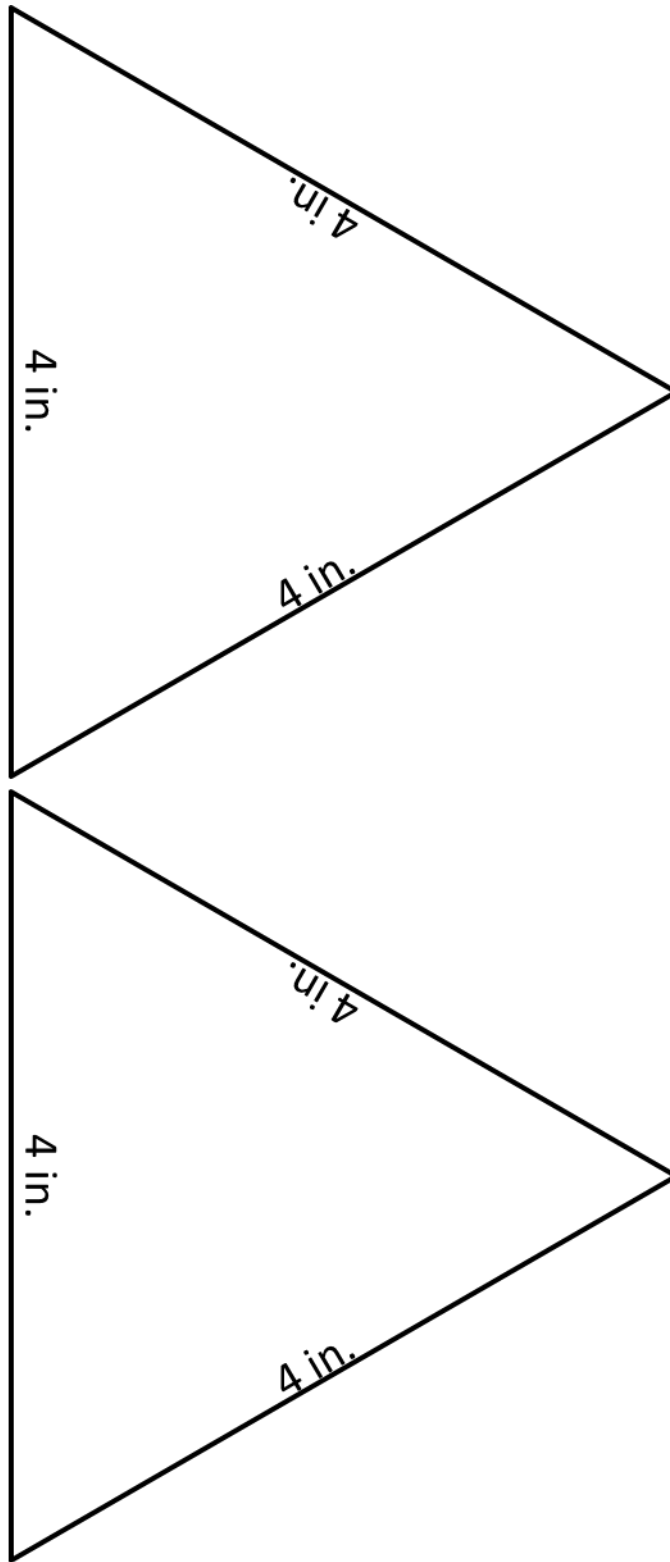
## Polygons for Exercise 2



## Polygons for Exercise 3, part (a)



## Triangles for Exercise 3, part (b)



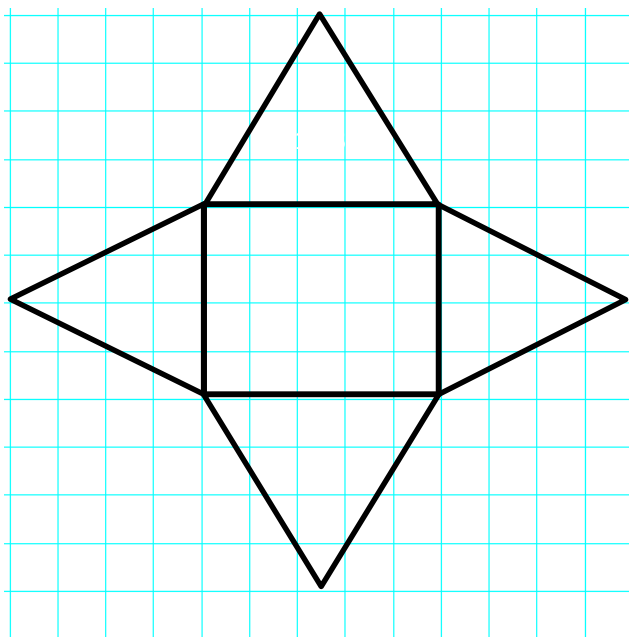
Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 17: From Nets to Surface Area

### Exit Ticket

Name the shape, and then calculate the surface area of the figure. Assume each box on the grid paper represents a 1 in.  $\times$  1 in. square.



Number Correct: \_\_\_\_\_

**Addition and Subtraction Equations—Round 1****Directions:** Find the value of  $m$  in each equation.

1.	$m + 4 = 11$	
2.	$m + 2 = 5$	
3.	$m + 5 = 8$	
4.	$m - 7 = 10$	
5.	$m - 8 = 1$	
6.	$m - 4 = 2$	
7.	$m + 12 = 34$	
8.	$m + 25 = 45$	
9.	$m + 43 = 89$	
10.	$m - 20 = 31$	
11.	$m - 13 = 34$	
12.	$m - 45 = 68$	
13.	$m + 34 = 41$	
14.	$m + 29 = 52$	
15.	$m + 37 = 61$	
16.	$m - 43 = 63$	
17.	$m - 21 = 40$	

18.	$m - 54 = 37$	
19.	$4 + m = 9$	
20.	$6 + m = 13$	
21.	$2 + m = 31$	
22.	$15 = m + 11$	
23.	$24 = m + 13$	
24.	$32 = m + 28$	
25.	$4 = m - 7$	
26.	$3 = m - 5$	
27.	$12 = m - 14$	
28.	$23.6 = m - 7.1$	
29.	$14.2 = m - 33.8$	
30.	$2.5 = m - 41.8$	
31.	$64.9 = m + 23.4$	
32.	$72.2 = m + 38.7$	
33.	$1.81 = m - 15.13$	
34.	$24.68 = m - 56.82$	

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

**Addition and Subtraction Equations—Round 2****Directions:** Find the value of  $m$  in each equation.

1.	$m + 2 = 7$	
2.	$m + 4 = 10$	
3.	$m + 8 = 15$	
4.	$m + 7 = 23$	
5.	$m + 12 = 16$	
6.	$m - 5 = 2$	
7.	$m - 3 = 8$	
8.	$m - 4 = 12$	
9.	$m - 14 = 45$	
10.	$m + 23 = 40$	
11.	$m + 13 = 31$	
12.	$m + 23 = 48$	
13.	$m + 38 = 52$	
14.	$m - 14 = 27$	
15.	$m - 23 = 35$	
16.	$m - 17 = 18$	
17.	$m - 64 = 1$	

18.	$6 = m + 3$	
19.	$12 = m + 7$	
20.	$24 = m + 16$	
21.	$13 = m + 9$	
22.	$32 = m - 3$	
23.	$22 = m - 12$	
24.	$34 = m - 10$	
25.	$48 = m + 29$	
26.	$21 = m + 17$	
27.	$52 = m + 37$	
28.	$\frac{6}{7} = m + \frac{4}{7}$	
29.	$\frac{2}{3} = m - \frac{5}{3}$	
30.	$\frac{1}{4} = m - \frac{8}{3}$	
31.	$\frac{5}{6} = m - \frac{7}{12}$	
32.	$\frac{7}{8} = m - \frac{5}{12}$	
33.	$\frac{7}{6} + m = \frac{16}{3}$	
34.	$\frac{1}{3} + m = \frac{13}{15}$	



Name \_\_\_\_\_

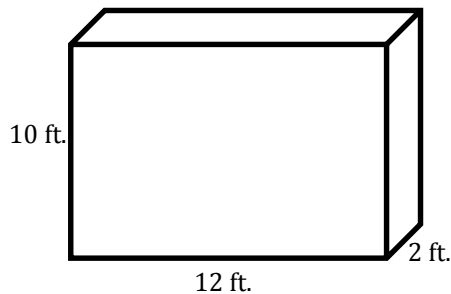
Date \_\_\_\_\_

## Lesson 18: Determining Surface Area of Three-Dimensional Figures

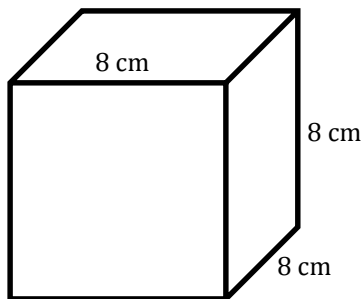
### Exit Ticket

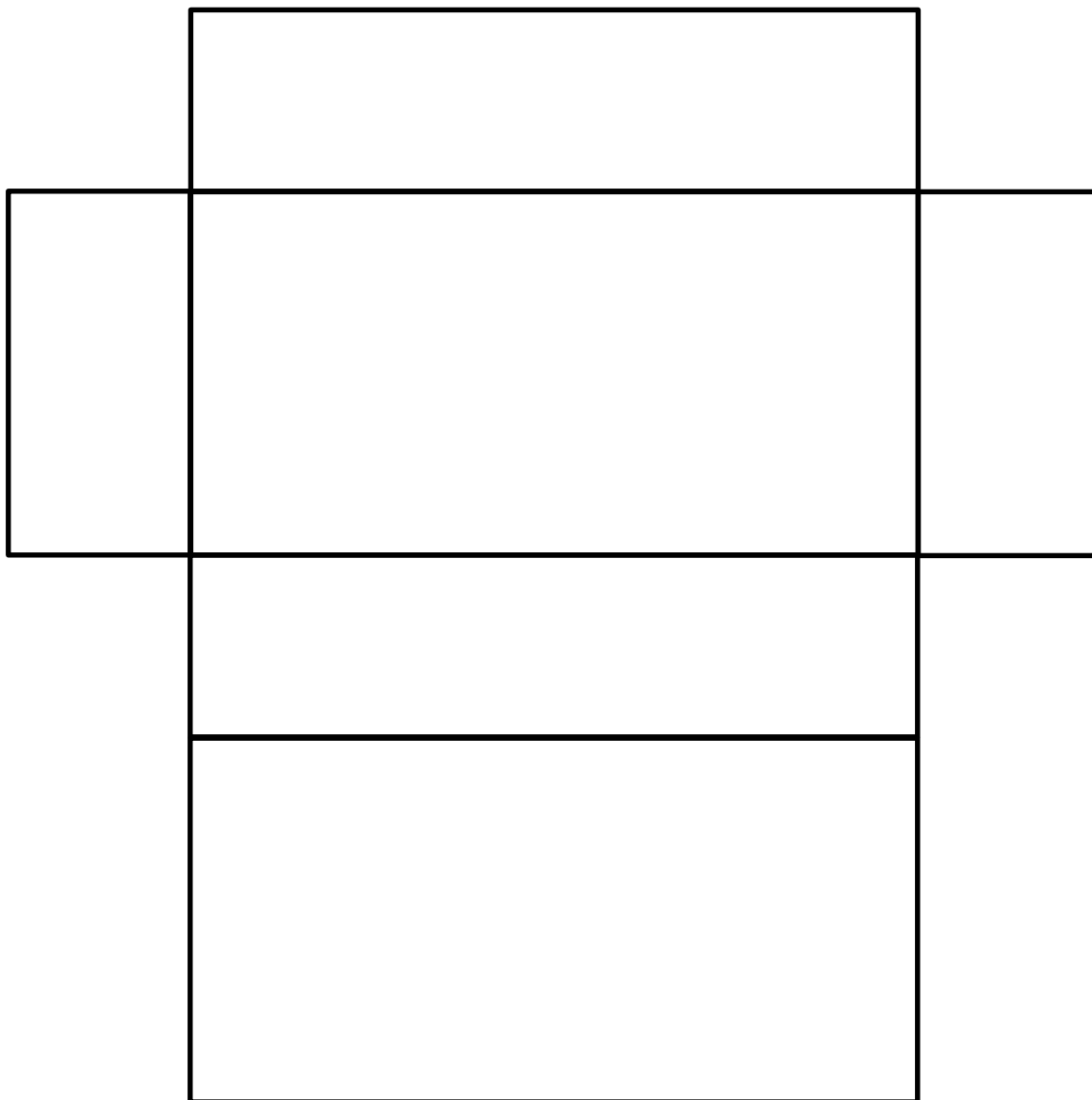
Calculate the surface area of each figure below. Figures are not drawn to scale.

1.



2.





Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 19: Surface Area and Volume in the Real World

## Exit Ticket

Solve the word problem below.

Kelly has a rectangular fish aquarium with an open top that measures 18 inches long, 8 inches wide, and 12 inches tall.

- What is the maximum amount of water in cubic inches the aquarium can hold?
- If Kelly wanted to put a protective covering on the four glass walls of the aquarium, how big does the cover have to be?

Name \_\_\_\_\_

Date \_\_\_\_\_

## Lesson 19a: Applying Surface Area and Volume to Aquariums

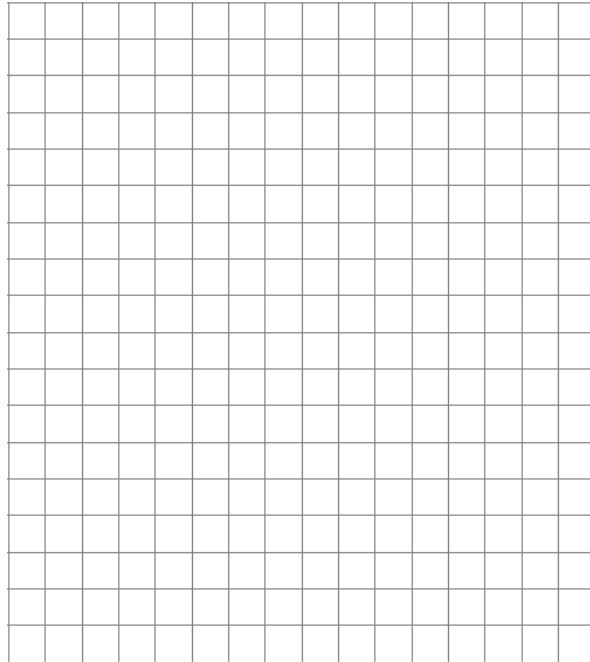
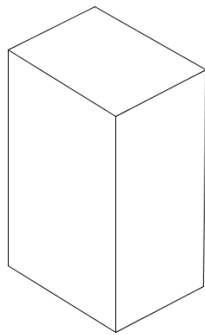
### Exit Ticket

What did you learn today? Describe at least one situation in real life that would draw on the skills you used today.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. The juice box pictured below is 4 inches high, 3 inches long, and 2 inches wide.



- In the grid above, the distance between grid lines represents one inch. Use the grid paper to sketch the net of the juice box.
- Find the surface area of the juice box. Show your work.
- Find the volume of the juice box. Show your work.

2. The Cubic Crystal Company has a new Crystal Cube they want to sell. The packaging manager insists that the cubes be arranged to form a rectangular prism and that the package be designed to hold the Crystal Cubes exactly, with no leftover packaging. Each Crystal Cube measures 1 in.  $\times$  1 in.  $\times$  1 in. There are 24 Crystal Cubes to be sold in a box.

- a. What are the dimensions of the possible box designs in inches?

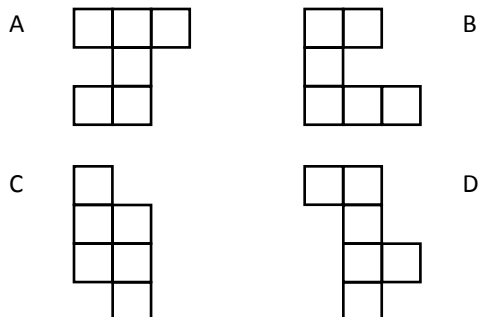
Height	Width	Length

- b. Which Crystal Cube box design will use the least amount of cardboard for packaging? Justify your answer as completely as you can.

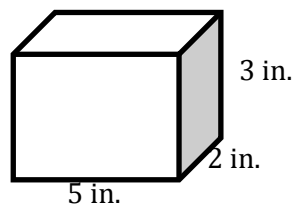
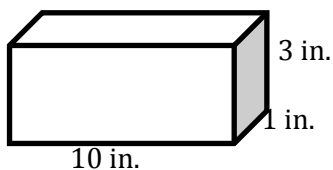
Height	Width	Length	Surface Area

- c. Another type of cube is the Mini Crystal Cube, which has an edge length of  $\frac{3}{4}$  inch. What is the volume in cubic inches of one Mini Crystal Cube? Show your work.

3. Which of these nets can be folded to form a cube?



4. Which box below has the larger surface area?



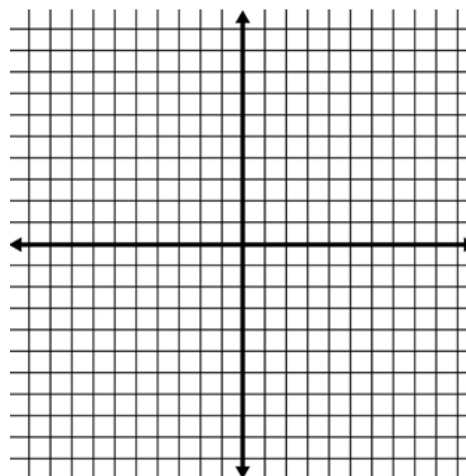
5. a. Draw a polygon in the coordinate plane using the given coordinates.

$(4, -4)$

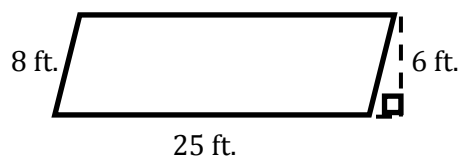
$(6, -2)$

$(8, -6)$

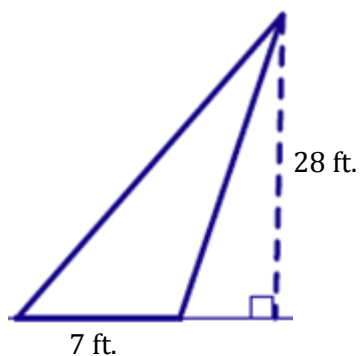
b. Calculate the area of the polygon.



6. Eaglecrest Elementary School is creating a vegetable garden at the school.



- a. What is the area of the garden?
- b. After more discussion, Eaglecrest decided to change the location of the garden so that the vegetables can get more sunlight. Below is the new garden.



In which garden can the students of Eaglecrest plant more vegetables? Explain your reasoning.