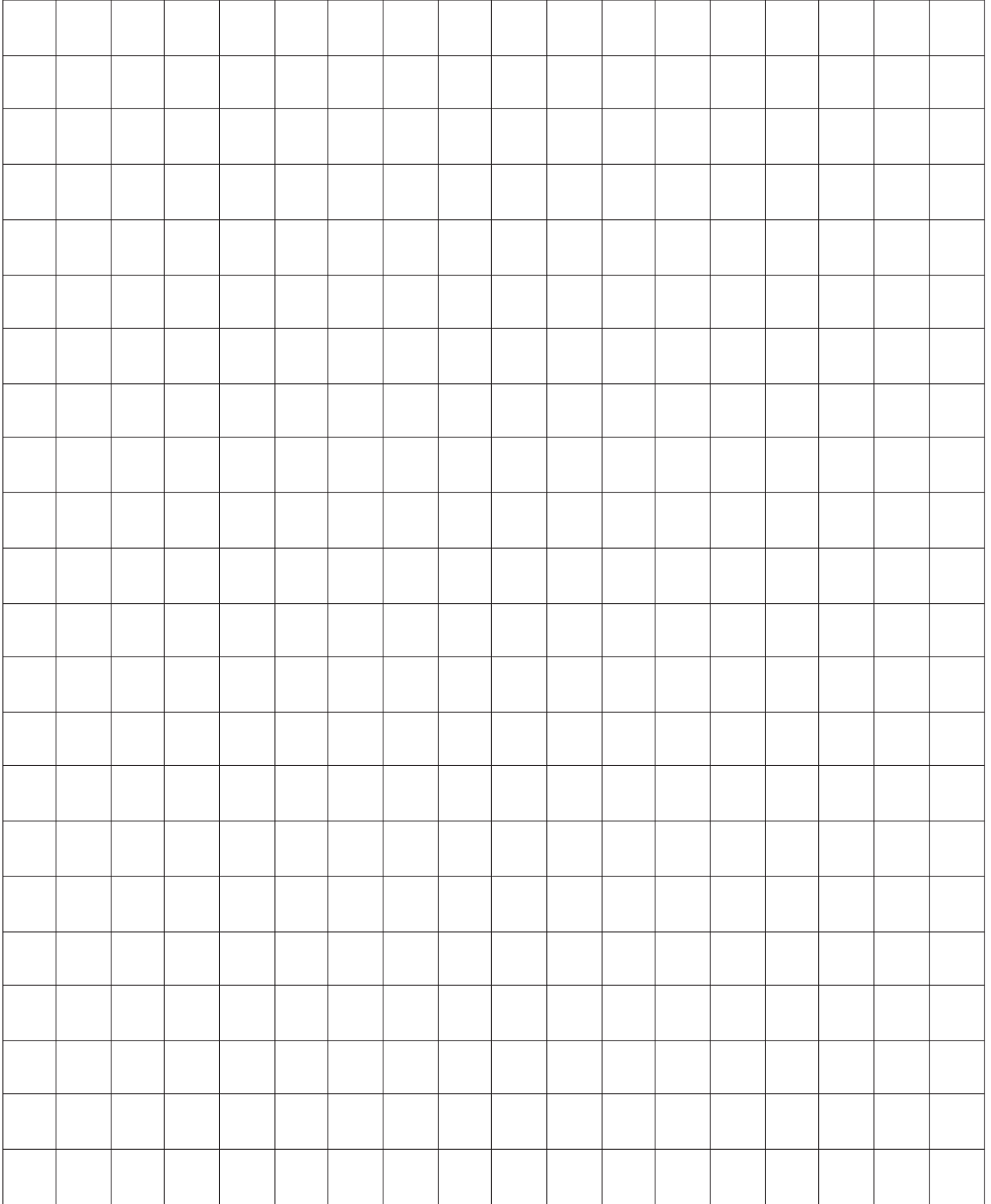
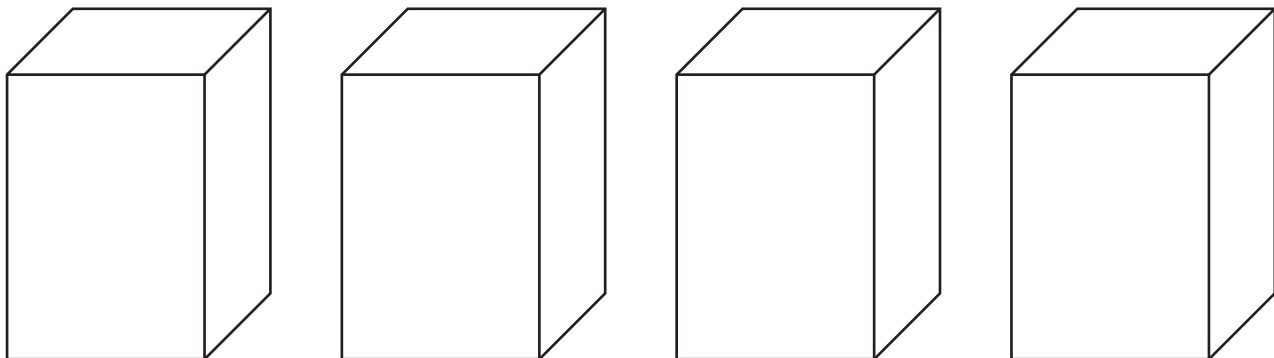
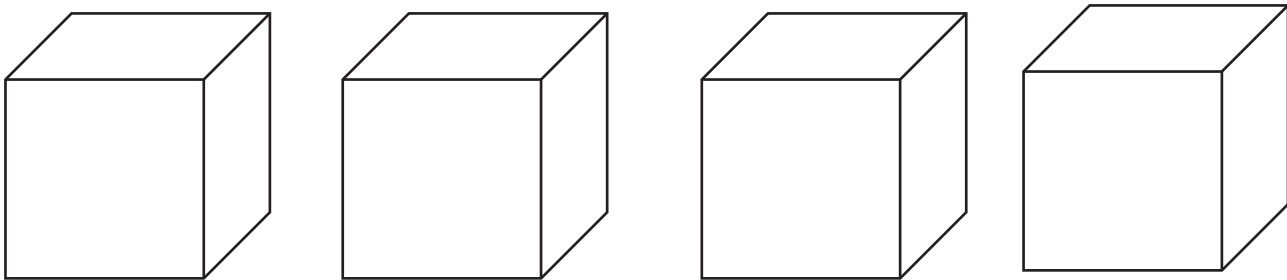
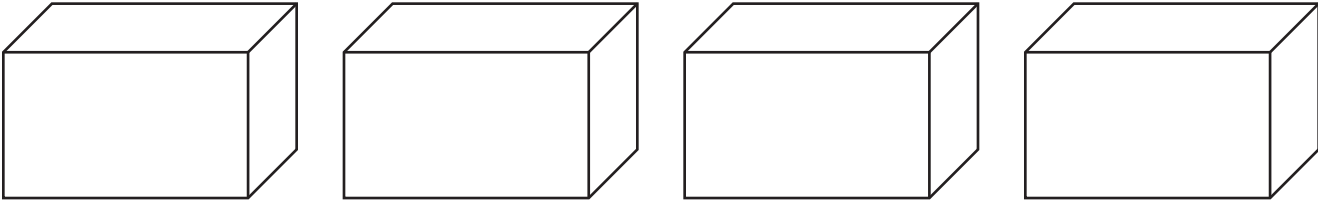


**Centimeter Grid**

Name \_\_\_\_\_

Date \_\_\_\_\_

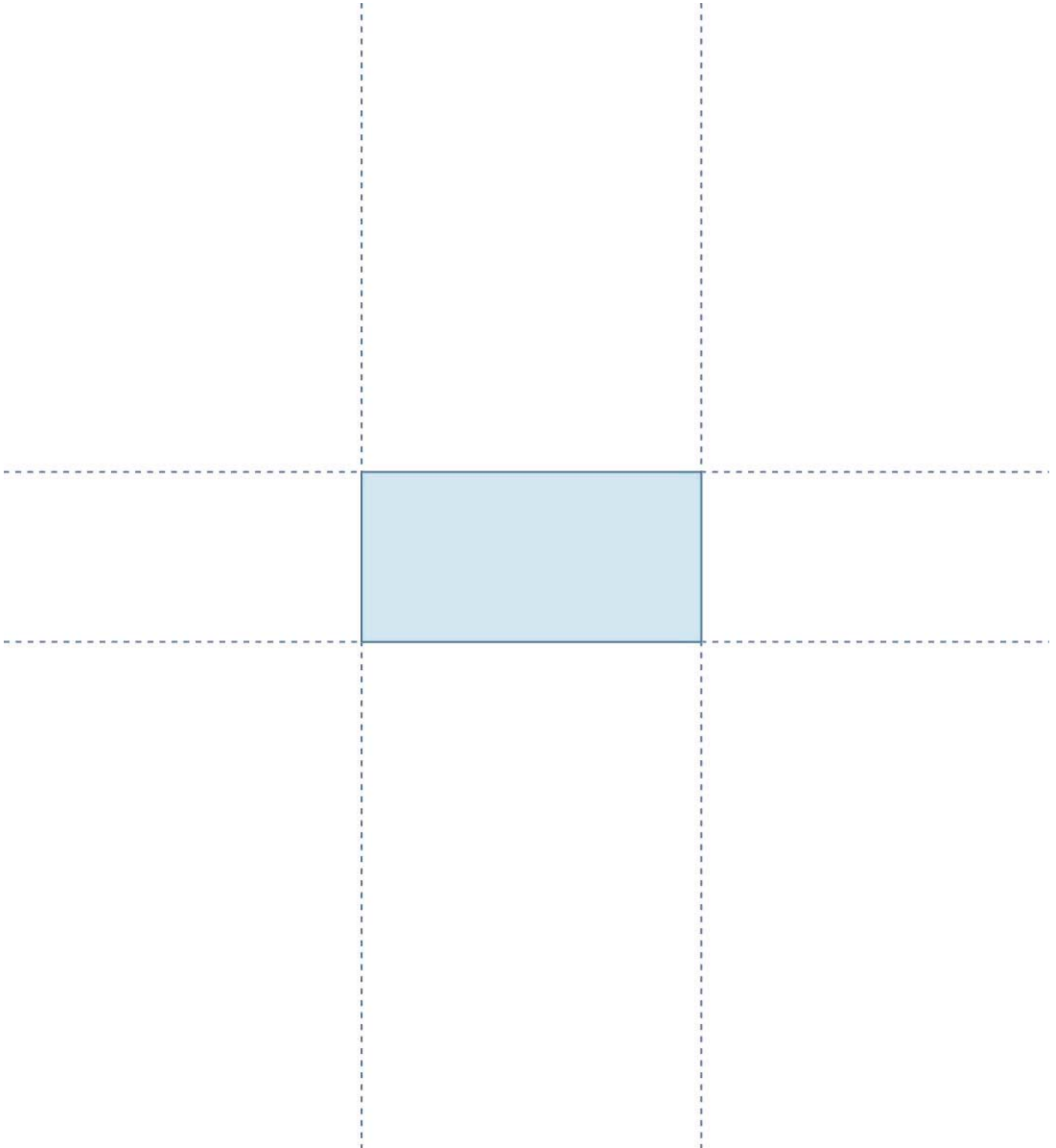
Use these rectangular prisms to record the layers that you count.

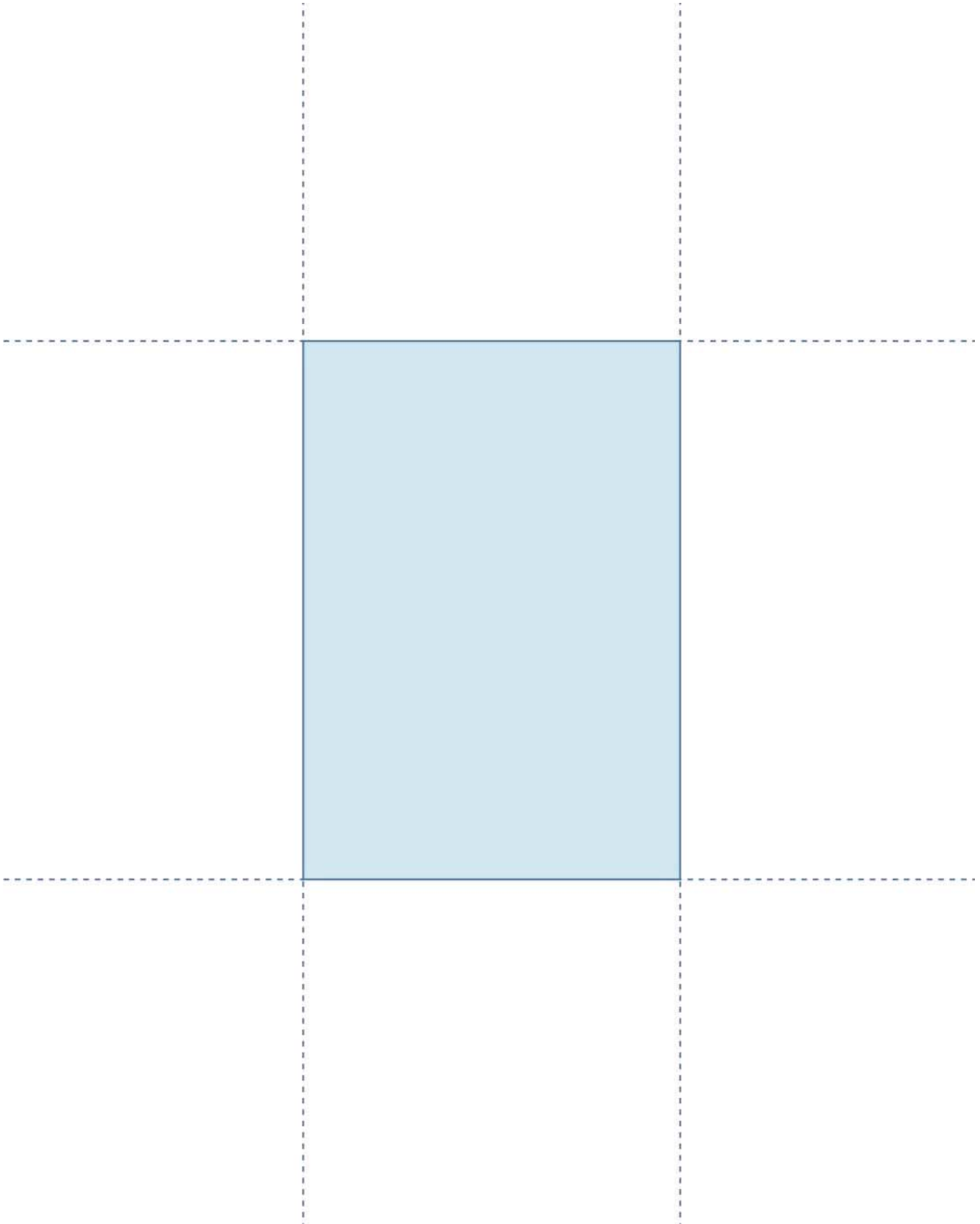


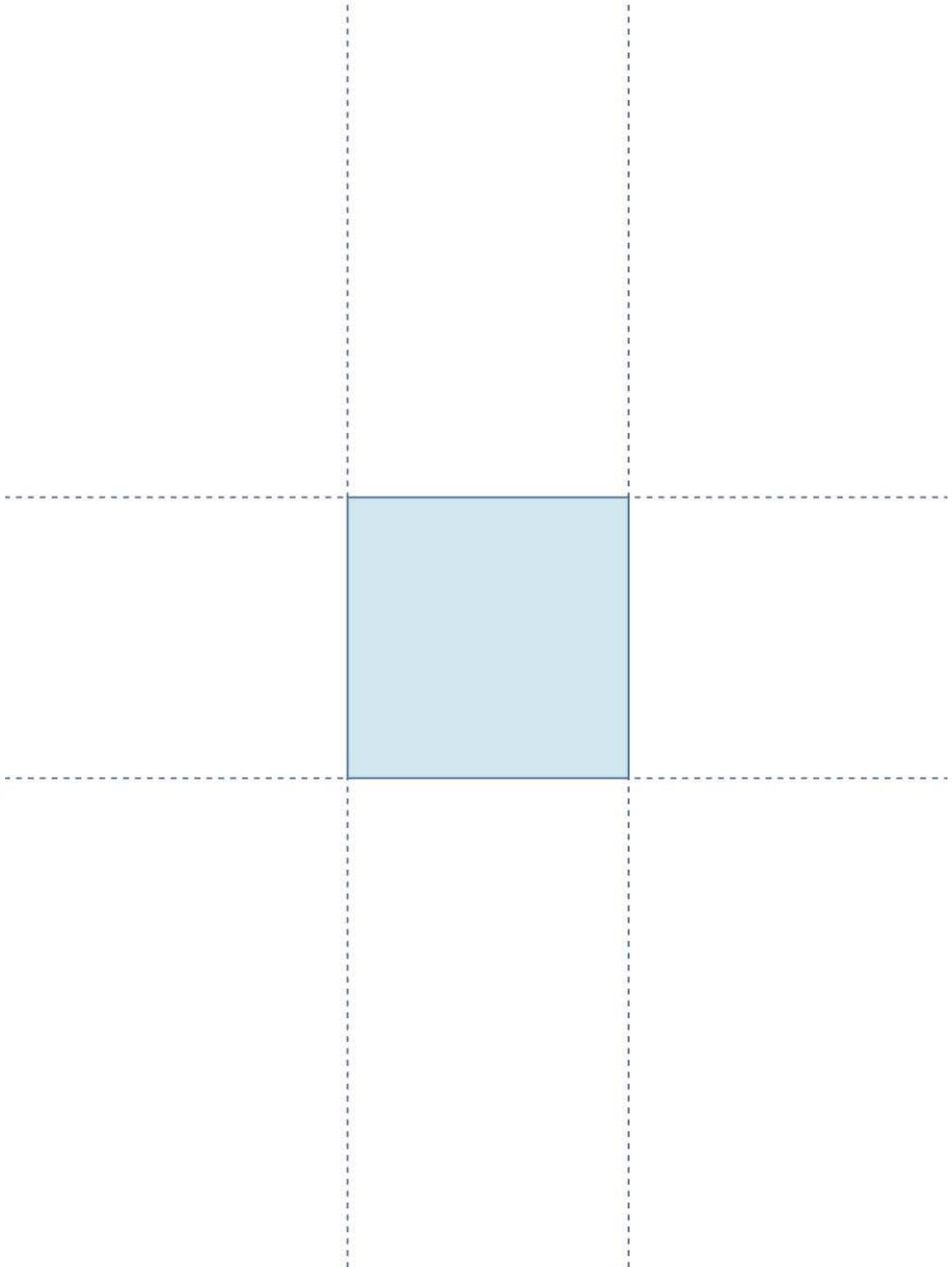
**Project Requirements**

1. Each project must include 5 to 7 rectangular prisms.
2. All prisms must be labeled with a letter (beginning with A), dimensions, and volume.
3. Prism D must be  $\frac{1}{2}$  the volume of another prism.
4. Prism E must be  $\frac{1}{3}$  the volume of another prism.
5. The total volume of all of the prisms must be 1,000 cubic centimeters or less.

Note: Be sure to set printer to *Actual Size* before printing.

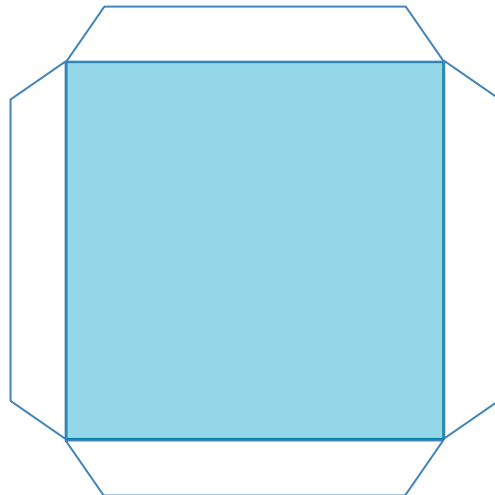
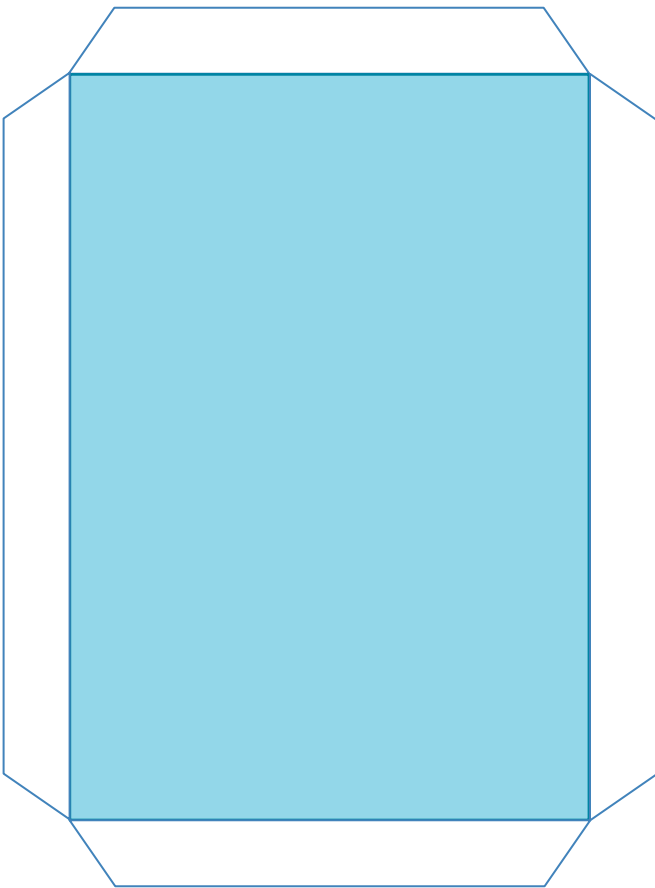
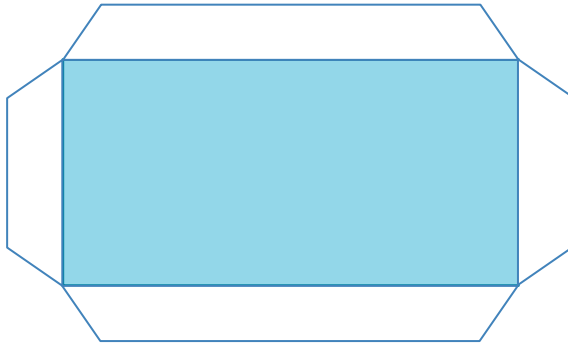


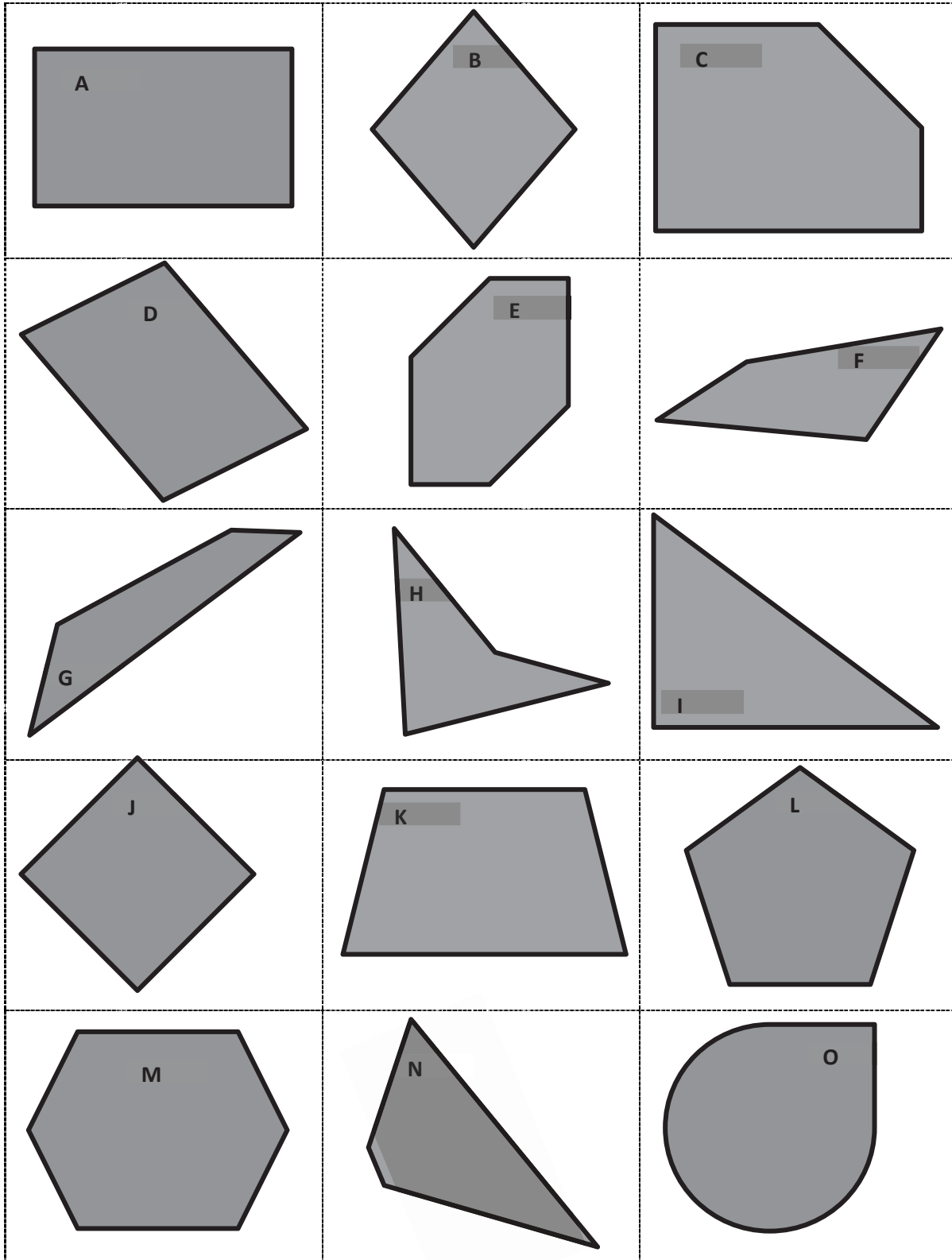




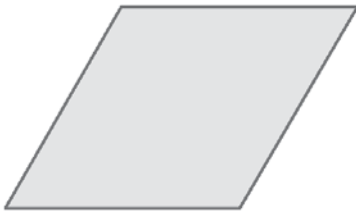


Lid patterns





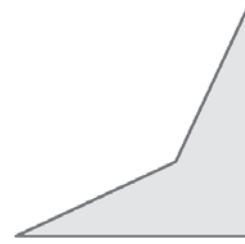
<b>Quadrilaterals</b>	<b>Trapezoids</b>
<b>Parallelograms</b>	<b>Rectangles</b>
<b>Rhombuses</b>	<b>Kites</b>
<b>Squares</b>	<b>Polygons</b>



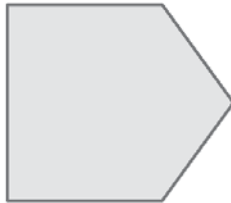
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2



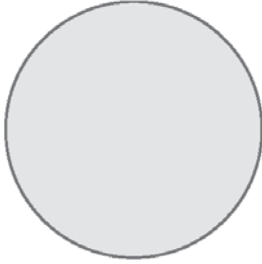
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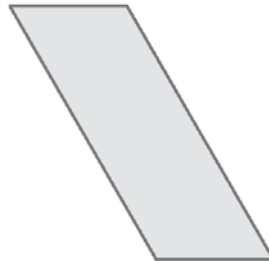
4



5



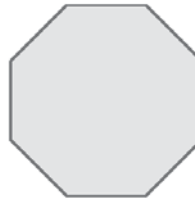
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7



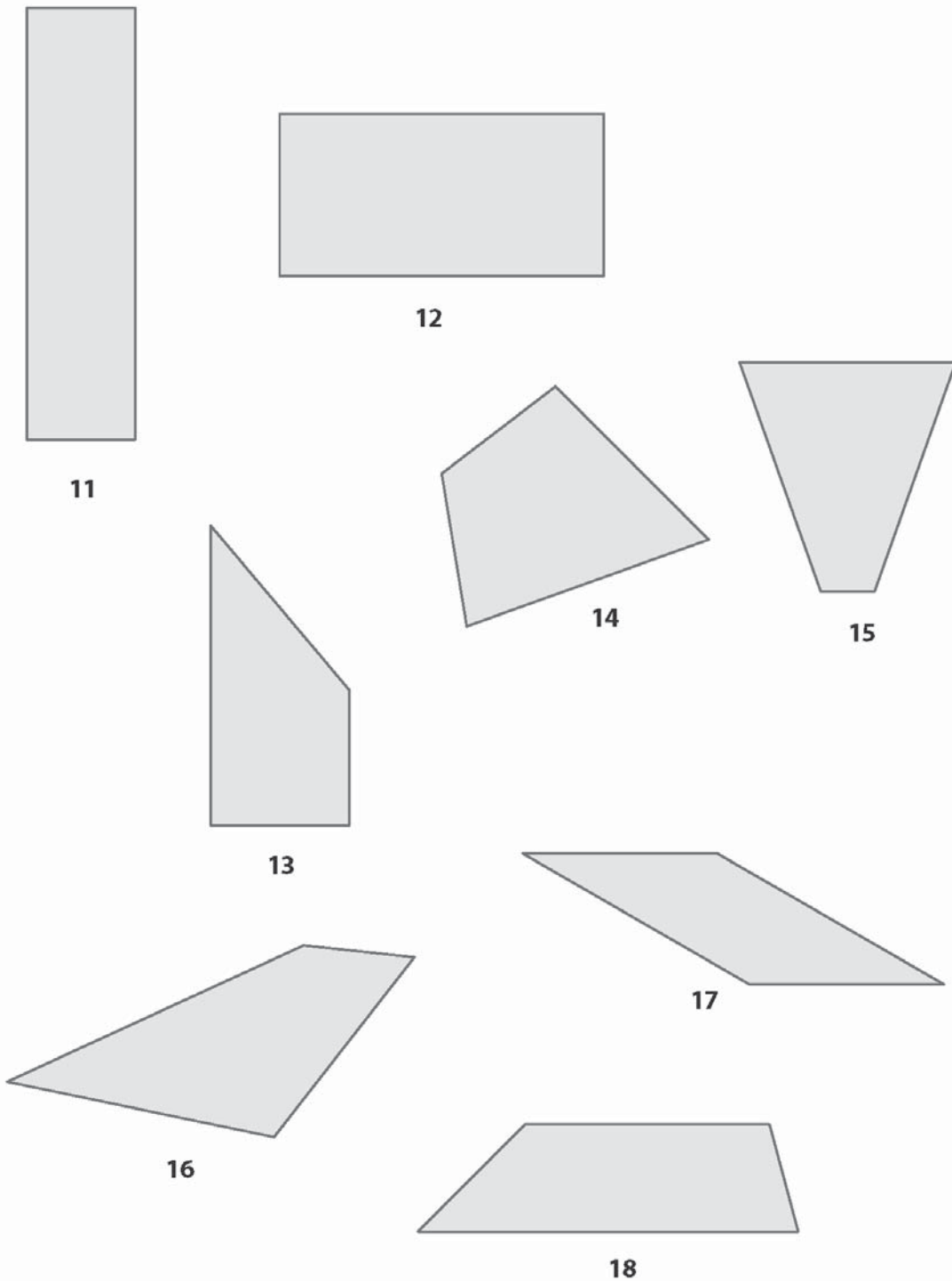
8



9



10



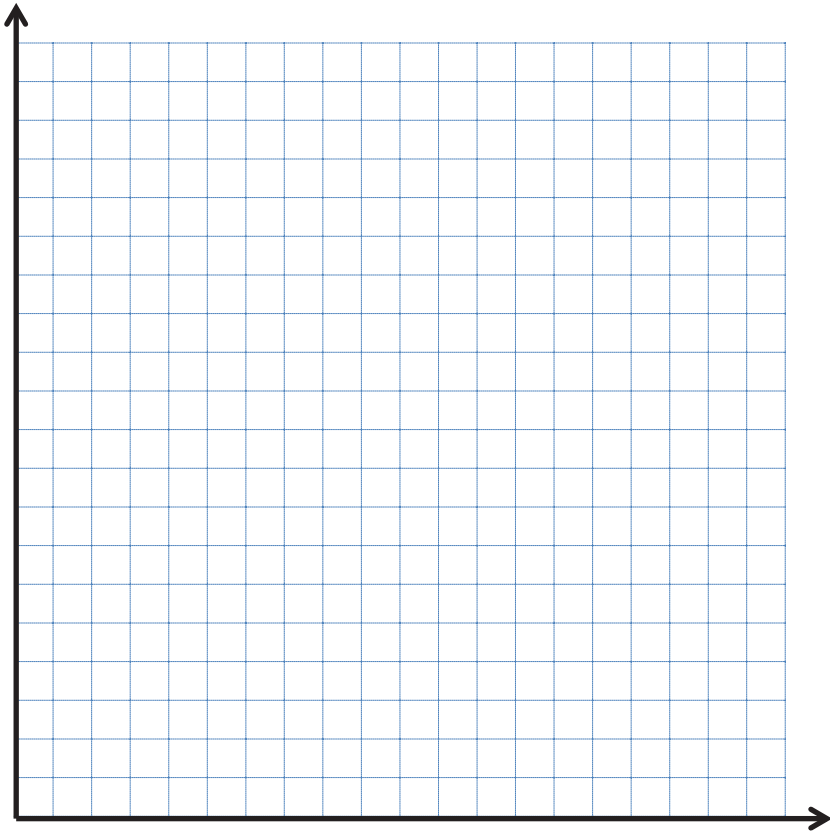
<p><b>Task 1:</b> Draw a trapezoid with a right angle.</p>	<p><b>Task 2:</b> Draw a rectangle with a length that is twice its width.</p>	<p><b>Task 3:</b> Draw a quadrilateral with 2 pairs of equal sides and no parallel sides.</p>
<p><b>Task 4:</b> Draw a rhombus with right angles.</p>	<p><b>Task 5:</b> Draw a parallelogram with two pairs of perpendicular sides.</p>	<p><b>Task 6:</b> Draw a rhombus with 4 equal angles.</p>

<p><b>Task 7:</b> Draw a quadrilateral with four equal sides.</p>	<p><b>Task 8:</b> Draw a parallelogram with right angles.</p>	<p><b>Task 9:</b> Draw a parallelogram with a side of 4 cm and a side of 6 cm.</p>
<p><b>Task 10:</b> Draw an isosceles trapezoid.</p>	<p><b>Task 11:</b> Draw a parallelogram with no right angles.</p>	<p><b>Task 12:</b> Draw a rectangle that is also a rhombus.</p>

<p><b>Task 13:</b> Draw a quadrilateral that has at least one pair of equal opposite angles.</p>	<p><b>Task 14:</b> Draw a quadrilateral that has only one pair of equal opposite angles.</p>	<p><b>Task 15:</b> Draw a trapezoid with four right angles.</p>
<p><b>Task 16:</b> Draw a kite that is also a parallelogram.</p>	<p><b>Task 17:</b> Draw a parallelogram with a <math>60^\circ</math> angle.</p>	<p><b>Task 18:</b> Draw a rectangle that is not a rhombus.</p>

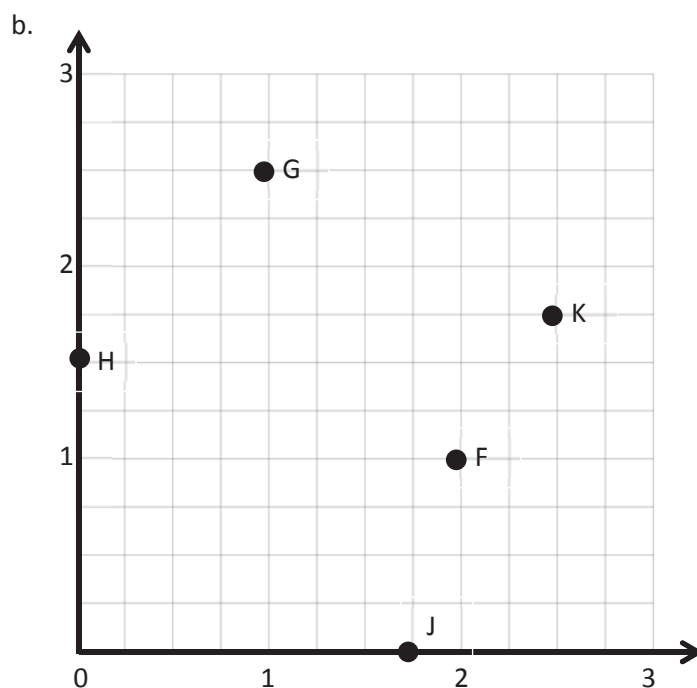
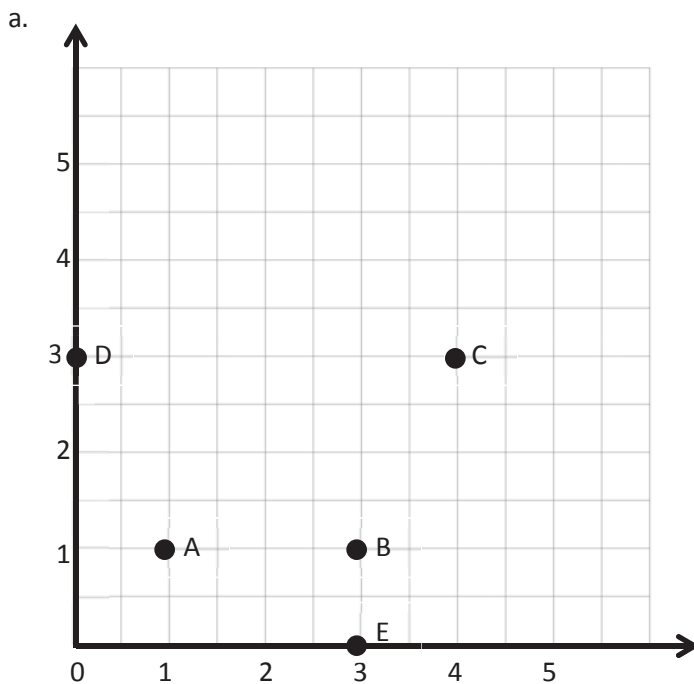


<p><b>Task 19:</b> Draw a rhombus that is not a rectangle.</p>	<p><b>Task 20:</b> Draw a parallelogram that is not a rectangle.</p>	<p><b>Task 21:</b> Draw a kite that is not a parallelogram.</p>
<p><b>Task 22:</b> Draw a quadrilateral whose diagonals bisect each other at a right angle.</p>	<p><b>Task 23:</b> Draw a trapezoid that is not a parallelogram.</p>	<p><b>Task 24:</b> Draw a quadrilateral whose diagonals do not bisect each other.</p>

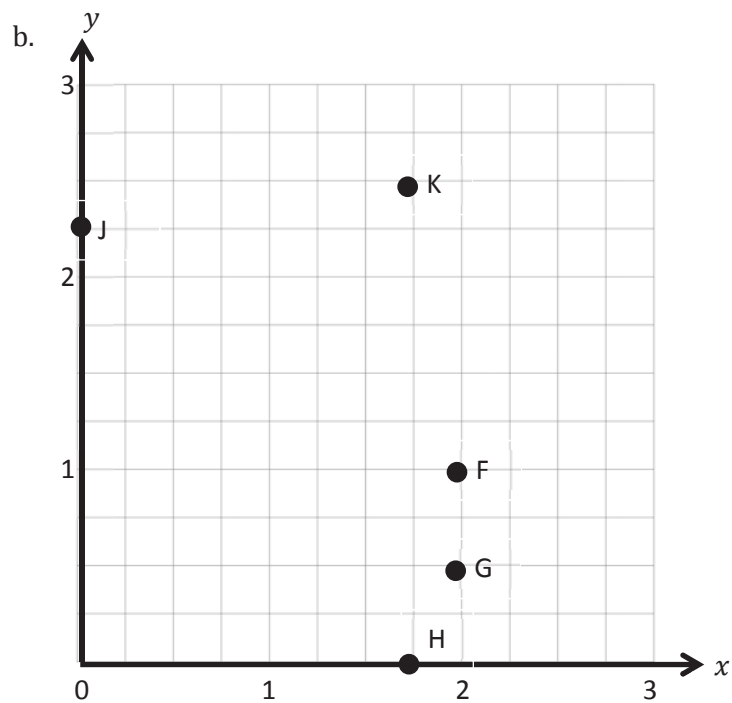
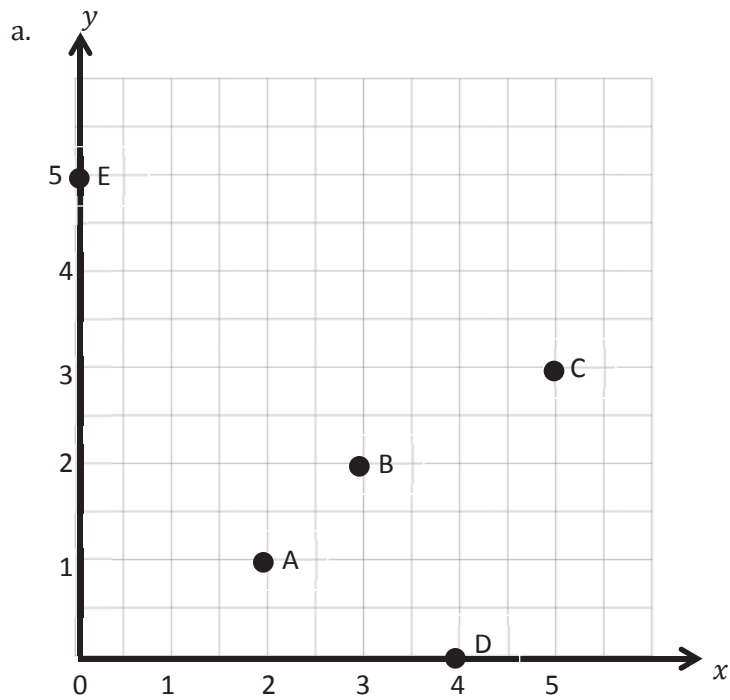


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coordinate plane



coordinate grid



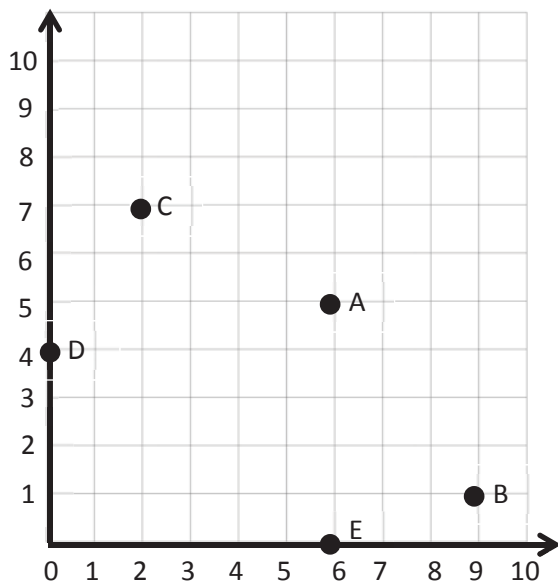
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coordinate grid

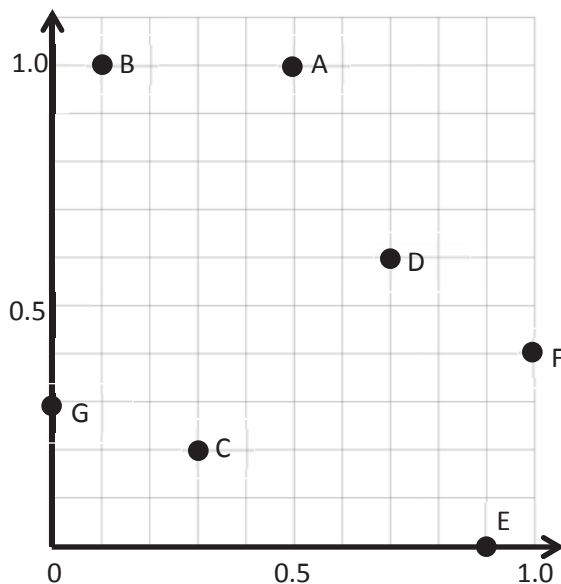
1,000,000	100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
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millions through thousandths place value chart

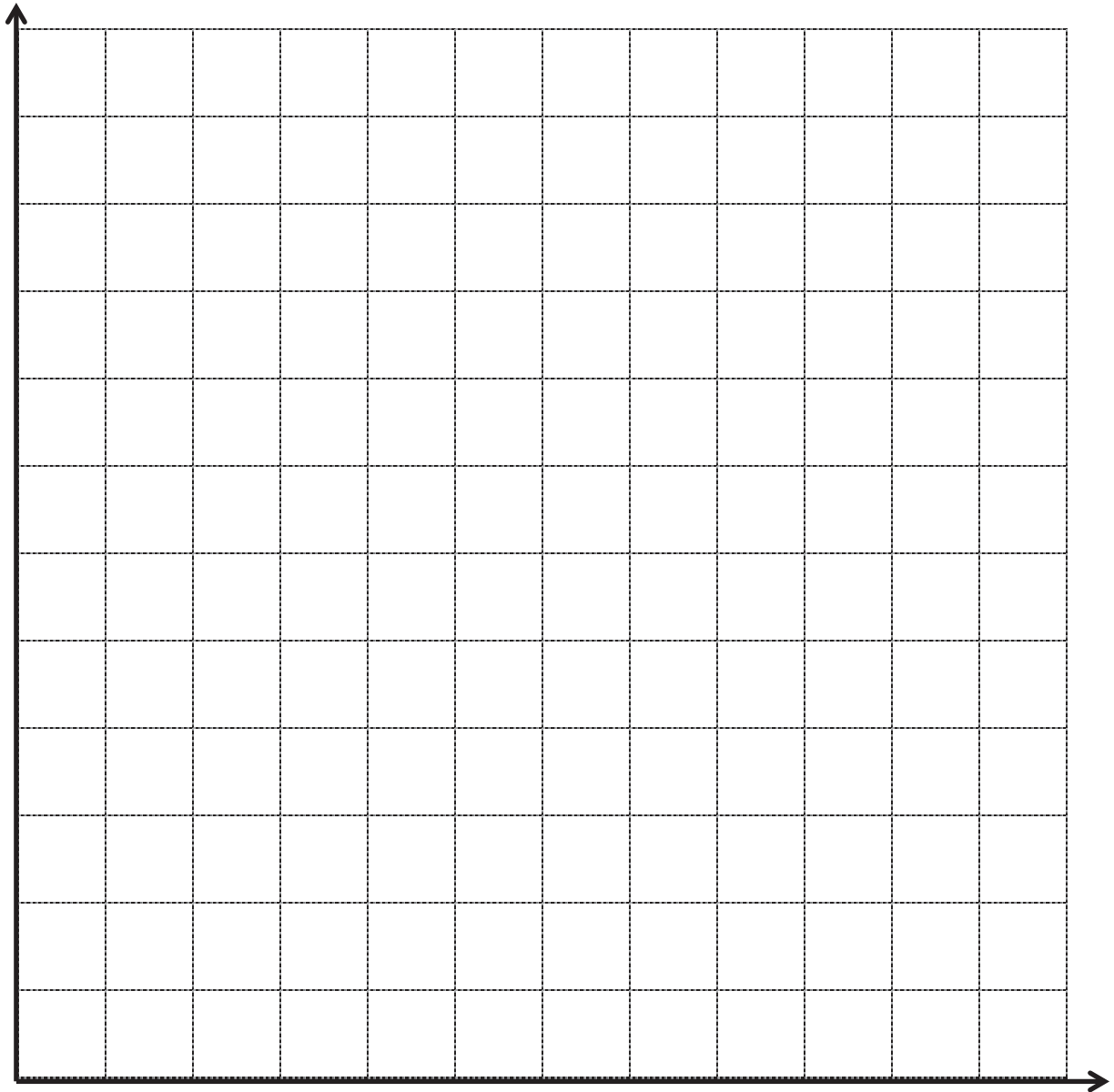
a.



b.



coordinate grid



coordinate grid insert

Line *l*

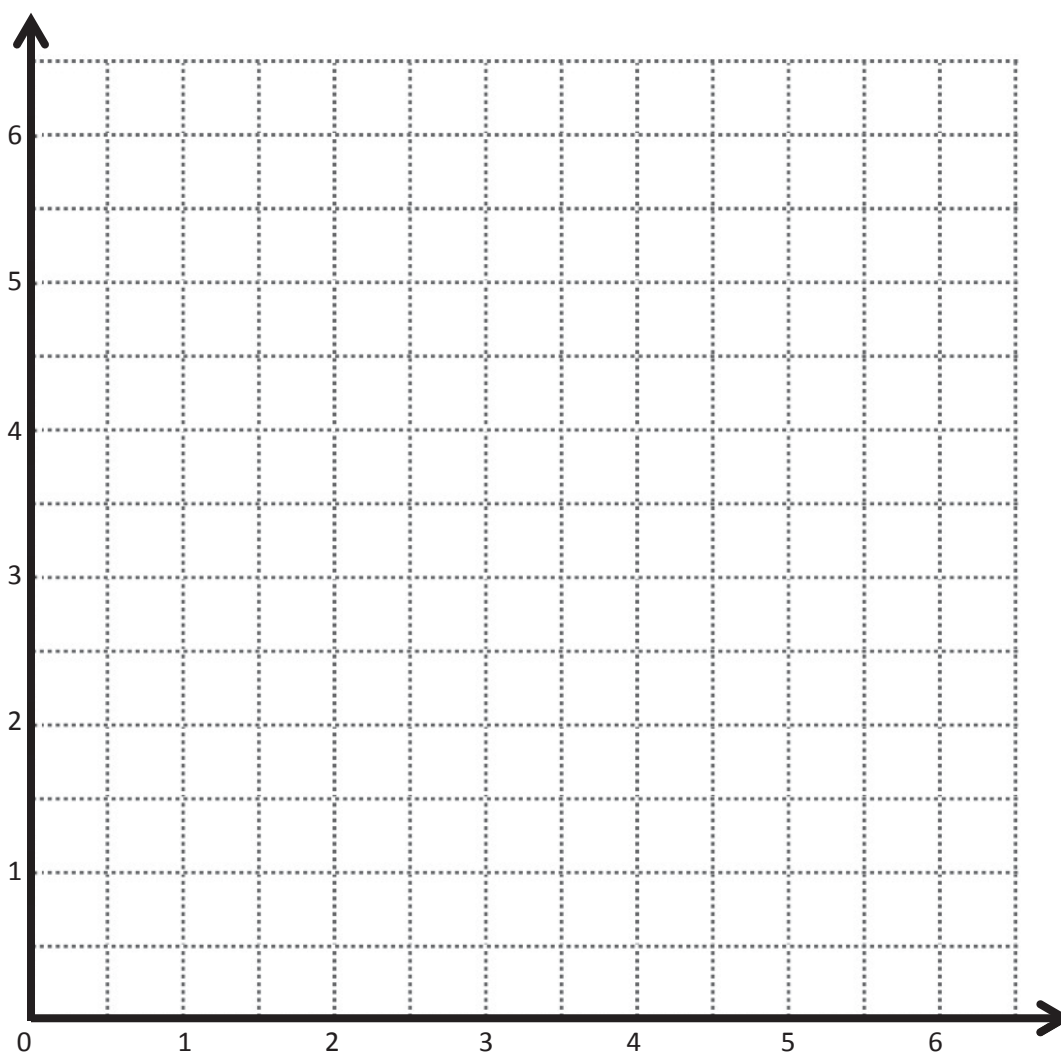
Rule: \_\_\_\_\_

Point	<i>x</i>	<i>y</i>	( <i>x</i> , <i>y</i> )
<i>A</i>	$1\frac{1}{2}$	3	$(1\frac{1}{2}, 3)$
<i>B</i>			
<i>C</i>			
<i>D</i>			

Line *m*

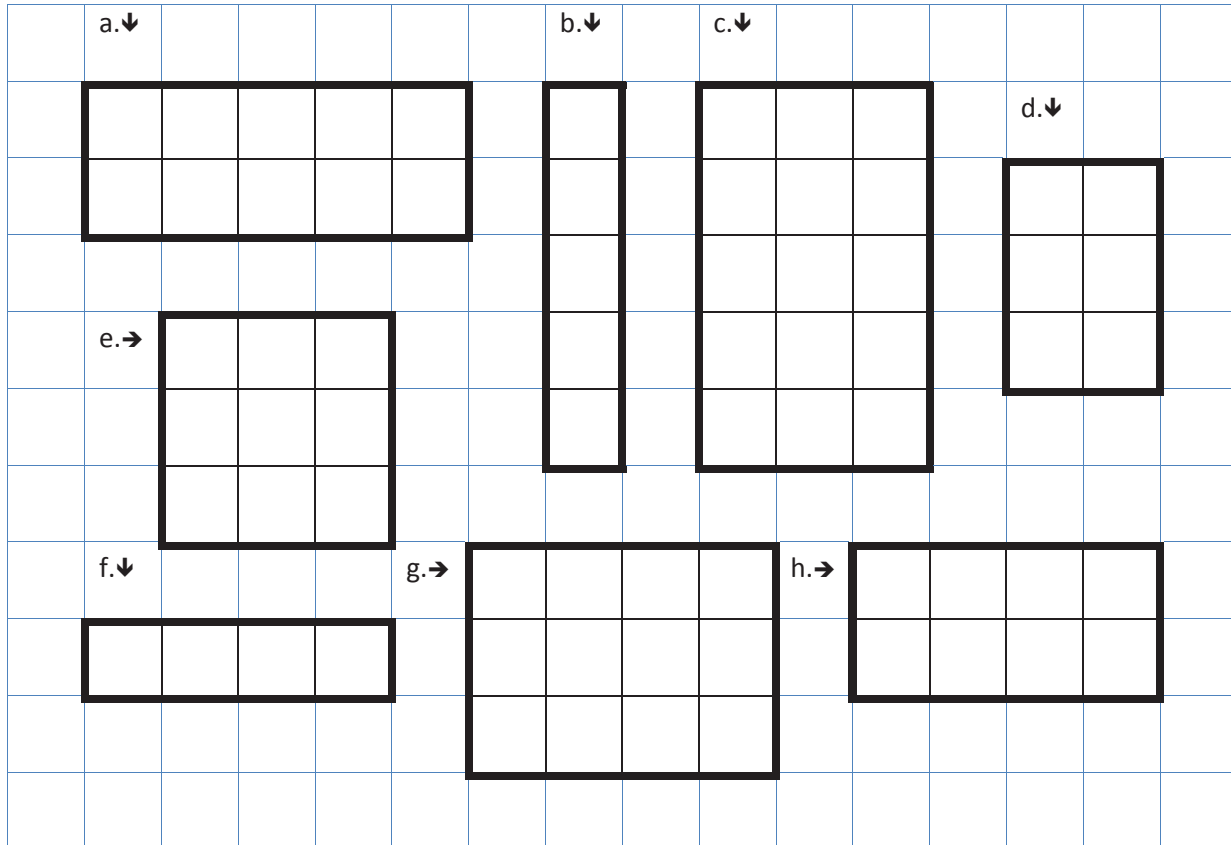
Rule: \_\_\_\_\_

Point	<i>x</i>	<i>y</i>	( <i>x</i> , <i>y</i> )
<i>A</i>			
<i>E</i>			
<i>F</i>			
<i>G</i>			



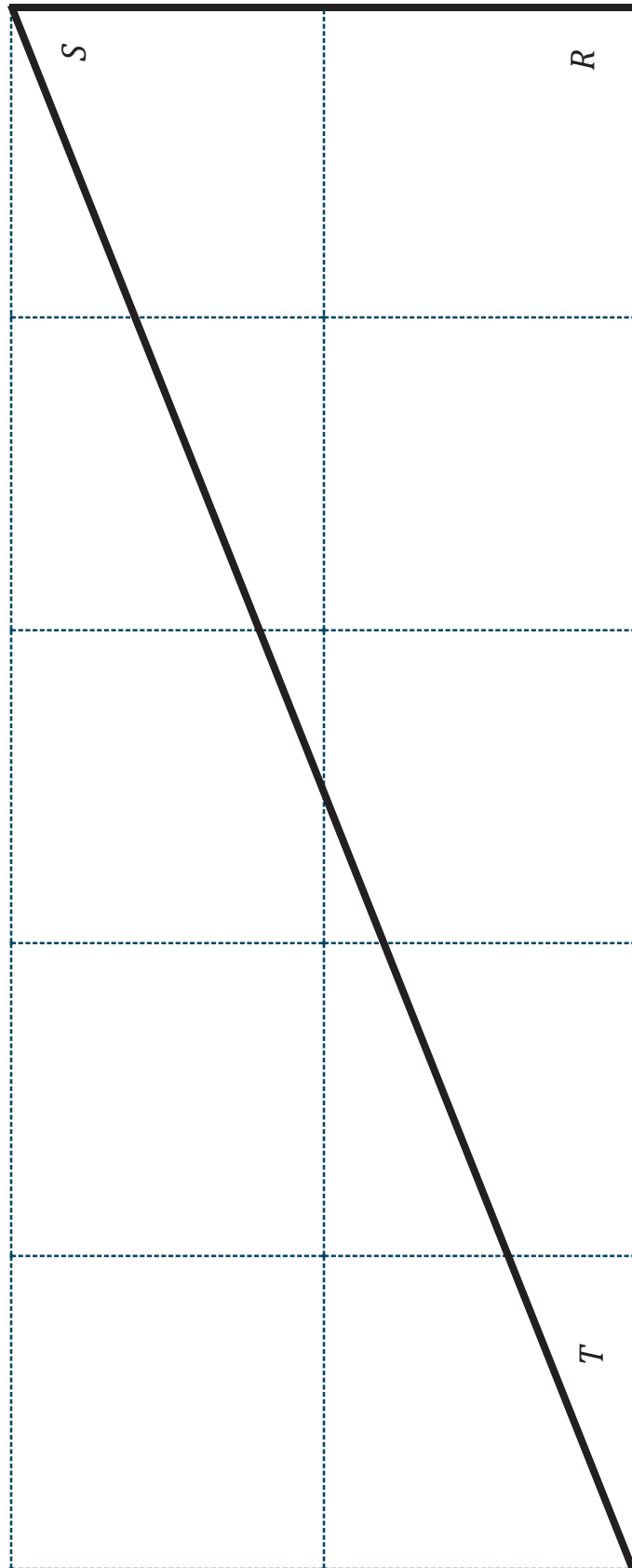
coordinate plane



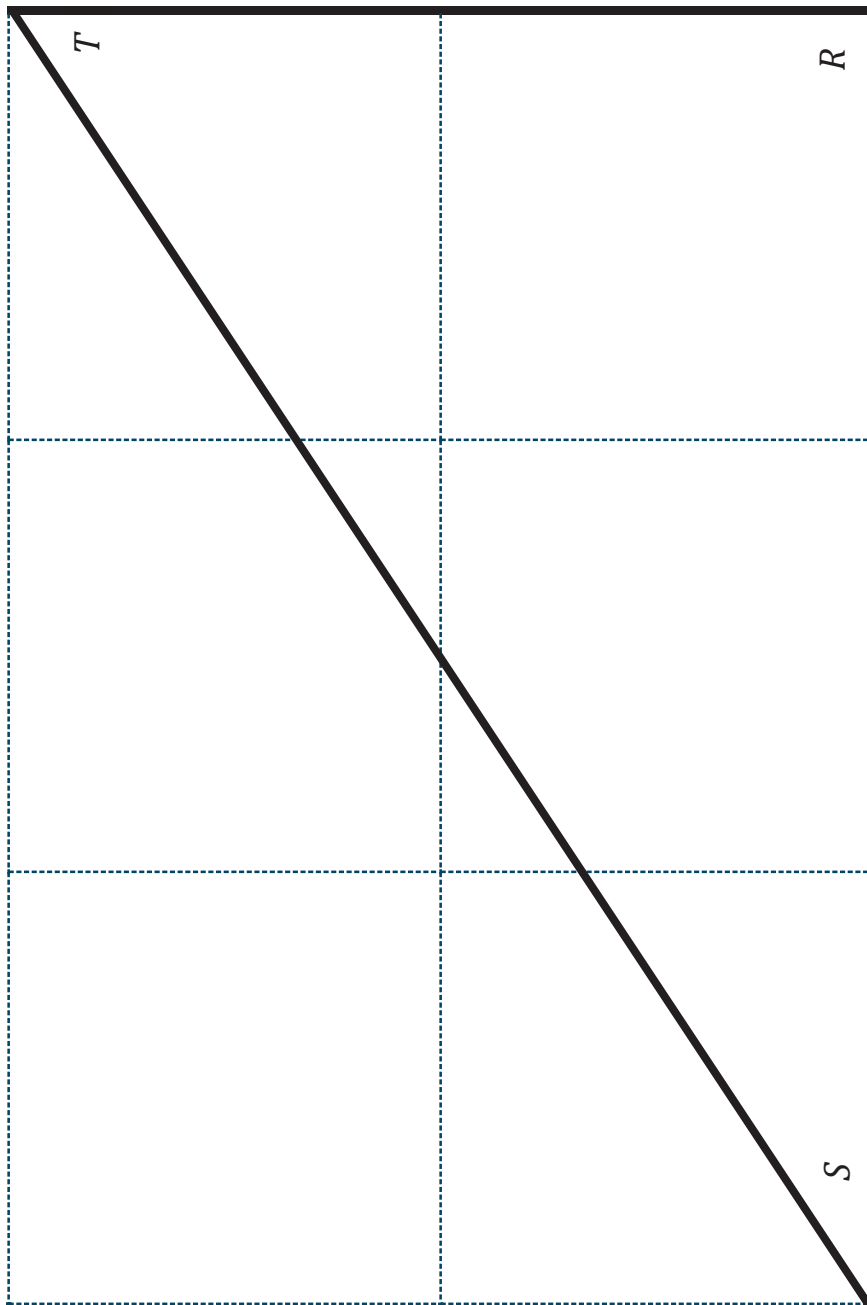


\_\_\_\_\_

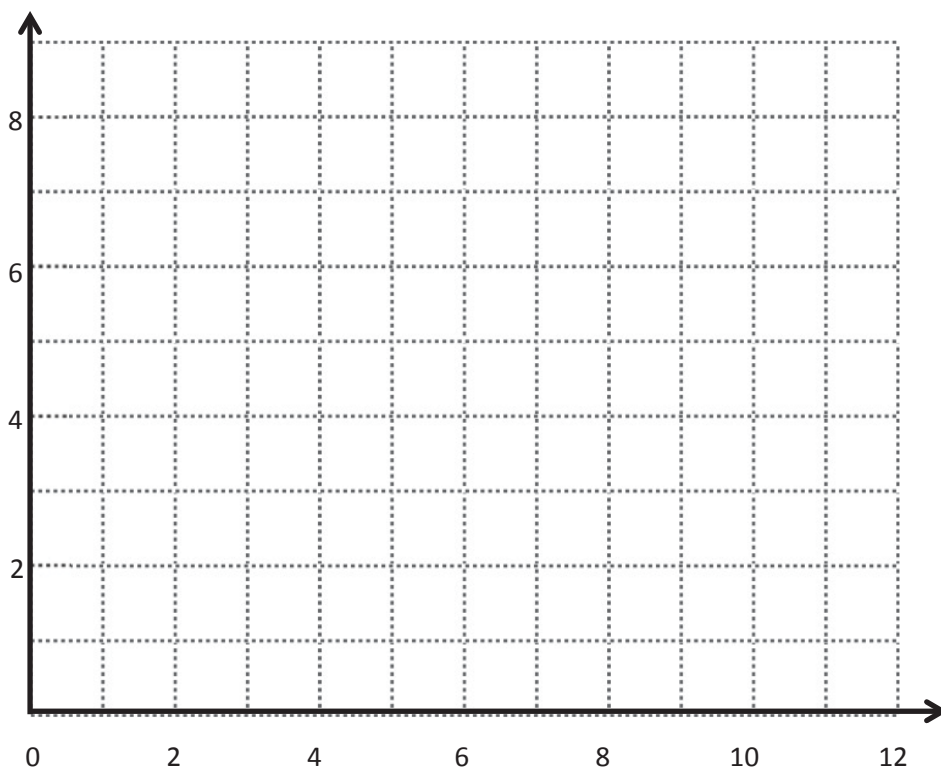
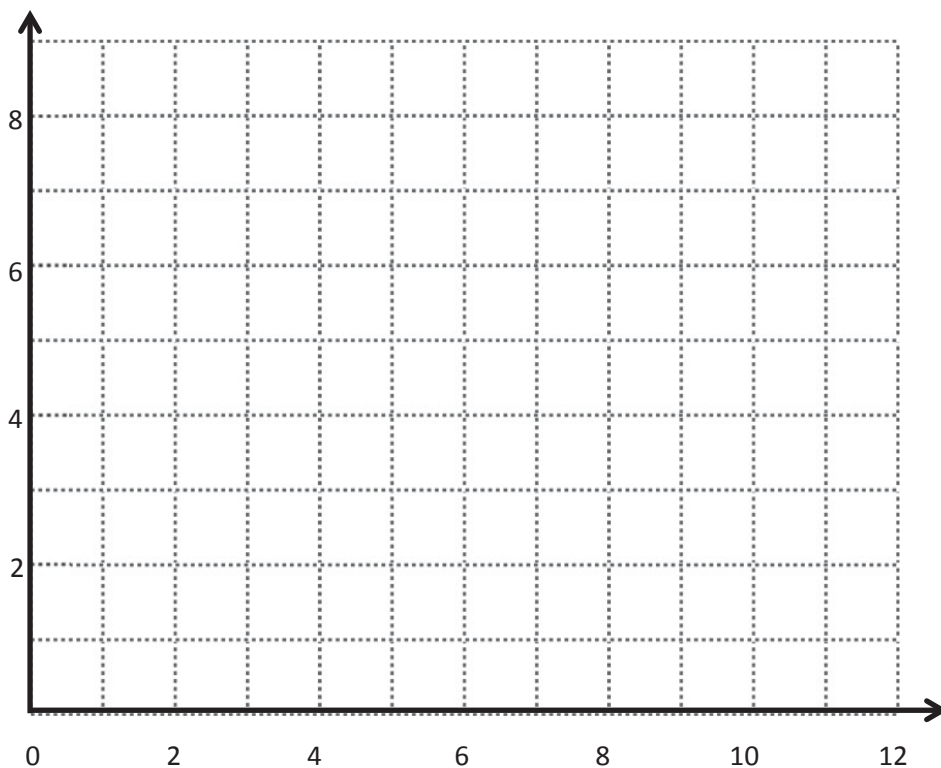
rectangles



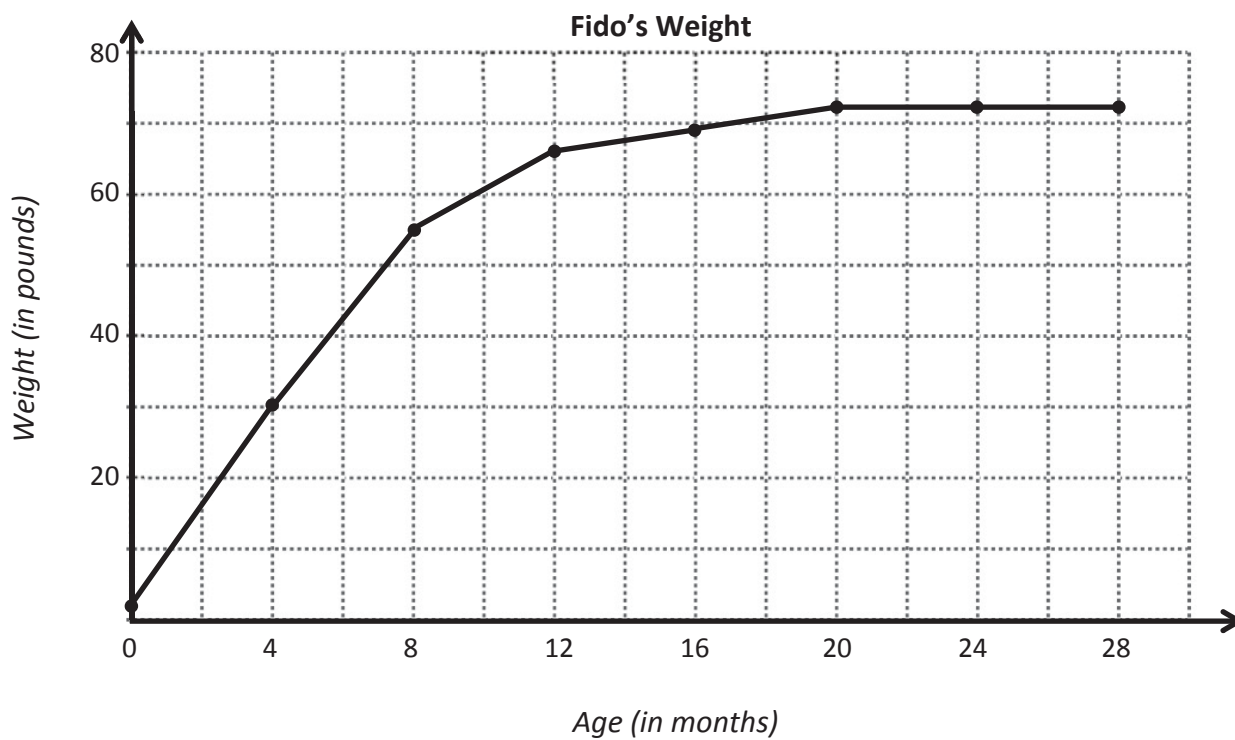
triangle  $RST$  (a)



triangle  $RST$  (b)



coordinate plane

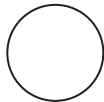


line graph practice sheet

six sevenths of nine	two thirds the sum of twenty-three and fifty-seven	forty-three less than three fifths of the product of ten and twenty	five sixths the difference of three hundred twenty-nine and two hundred eighty-one
three times as much as the sum of three fourths and two thirds	the difference between thirty thirties and twenty-eight thirties	twenty-seven more than half the sum of four and one eighth and six and two thirds	the sum of eighty-eight and fifty-six divided by twelve
the product of nine and eight divided by four	one sixth the product of twelve and four	six copies of the sum of six twelfths and three fourths	double three fourths of eighteen

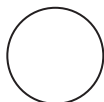
expression cards

$$96 \times \left(63 + \frac{17}{12}\right)$$



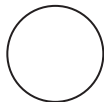
$$(96 \times 63) + \frac{17}{12}$$

$$\left(437 \times \frac{9}{15}\right) \times \frac{6}{8}$$



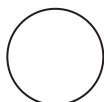
$$\left(437 \times \frac{9}{15}\right) \times \frac{7}{8}$$

$$4 \times 8.35 + 4 \times 6.21$$



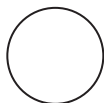
$$4 \times 15.87$$

$$\frac{6}{7} \times (3,065 + 4,562)$$



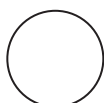
$$(3,065 + 4,562) + \frac{6}{7}$$

$$(8.96 \times 3) + (5.07 \times 8)$$



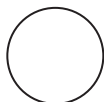
$$(8.96 + 3) \times (5.07 + 8)$$

$$\left(297 \times \frac{16}{15}\right) + \frac{8}{3}$$



$$\left(297 \times \frac{13}{15}\right) + \frac{8}{3}$$

$$\frac{12}{7} \times \left(\frac{5}{4} + \frac{5}{9}\right)$$



$$\frac{12}{7} \times \frac{5}{4} + \frac{12}{7} \times \frac{5}{9}$$

comparing expressions game board

**Write Fractions as Mixed Numbers**

Materials: (S) Personal white board

T: (Write  $\frac{13}{2} = \underline{\quad} \div \underline{\quad} = \underline{\quad}$ .) Write the fraction as a division problem and mixed number.

S: (Write  $\frac{13}{2} = 13 \div 2 = 6\frac{1}{2}$ .)

More practice!

$\frac{11}{2}, \frac{17}{2}, \frac{44}{2}, \frac{31}{10}, \frac{23}{10}, \frac{47}{10}, \frac{89}{10}, \frac{8}{3}, \frac{13}{3}, \frac{26}{3}, \frac{9}{4}, \frac{13}{4}, \frac{15}{4}$ , and  $\frac{35}{4}$ .

**Fraction of a Set**

Materials: (S) Personal white board

T: (Write  $\frac{1}{2} \times 10$ .) Draw a tape diagram to model the whole number.

S: (Draw a tape diagram, and label it 10.)

T: Draw a line to split the tape diagram in half.

S: (Draw a line.)

T: What is the value of each part of your tape diagram?

S: 5.

T: So, what is  $\frac{1}{2}$  of 10?

S: 5.

More practice!

$8 \times \frac{1}{2}, 8 \times \frac{1}{4}, 6 \times \frac{1}{3}, 30 \times \frac{1}{6}, 42 \times \frac{1}{7}, 42 \times \frac{1}{6}, 48 \times \frac{1}{8}, 54 \times \frac{1}{9}$ , and  $54 \times \frac{1}{6}$ .

**Convert to Hundredths**

Materials: (S) Personal white board

T: (Write  $\frac{3}{4} = \frac{\quad}{100}$ .) 4 times what factor equals 100?

S: 25.

T: Write the equivalent fraction.

S: (Write  $\frac{3}{4} = \frac{75}{100}$ .)

More practice!

$\frac{3}{4} = \frac{\quad}{100}, \frac{1}{50} = \frac{\quad}{100}, \frac{3}{50} = \frac{\quad}{100}, \frac{1}{20} = \frac{\quad}{100}, \frac{3}{20} = \frac{\quad}{100}$ ,

$\frac{1}{25} = \frac{\quad}{100}$ , and  $\frac{2}{25} = \frac{\quad}{100}$ .

**Multiply a Fraction and a Whole Number**

Materials: (S) Personal white board

T: (Write  $\frac{8}{4}$ .) Write the corresponding division sentence.

S: (Write  $8 \div 4 = 2$ .)

T: (Write  $\frac{1}{4} \times 8$ .) Write the complete multiplication sentence.

S: (Write  $\frac{1}{4} \times 8 = 2$ .)

More practice!

$\frac{18}{6}, \frac{15}{3}, \frac{18}{3}, \frac{27}{9}, \frac{54}{6}, \frac{51}{3}$ , and  $\frac{63}{7}$ .

fluency activities



**Multiply Mentally**

Materials: (S) Personal white board

- T: (Write  $9 \times 10$ .) On your personal white board, write the complete multiplication sentence.
- S: (Write  $9 \times 10 = 90$ .)
- T: (Write  $9 \times 9 = 90 - \underline{\quad}$  below  $9 \times 10 = 90$ .) Write the number sentence, filling in the blank.
- S: (Write  $9 \times 9 = 90 - 9$ .)
- T:  $9 \times 9$  is...?
- S: 81.

More practice!

$9 \times 99$ ,  $15 \times 9$ , and  $29 \times 99$ .

**One Unit More**

Materials: (S) Personal white board

- T: (Write 5 tenths.) On your personal white board, write the decimal that's one-tenth more than 5 tenths.
- S: (Write 0.6.)

More practice!

5 hundredths, 5 thousandths, 8 hundredths, and 2 thousandths. Specify the unit of increase.

- T: (Write 0.052.) Write one more thousandth.
- S: (Write 0.053.)

More practice!

1 tenth more than 35 hundredths,  
1 thousandth more than 35 hundredths, and  
1 hundredth more than 438 thousandths.

**Find the Product**

Materials: (S) Personal white board

- T: (Write  $4 \times 3$ .) Complete the multiplication sentence giving the second factor in unit form.
- S: (Write  $4 \times 3$  ones = 12 ones.)
- T: (Write  $4 \times 0.2$ .) Complete the multiplication sentence giving the second factor in unit form.
- S: (Write  $4 \times 2$  tenths = 8 tenths.)
- T: (Write  $4 \times 3.2$ .) Complete the multiplication sentence giving the second factor in unit form.
- S: (Write  $4 \times 3$  ones 2 tenths = 12 ones 8 tenths.)
- T: Write the complete multiplication sentence.
- S: (Write  $4 \times 3.2 = 12.8$ .)

More practice!

$4 \times 3.21$ ,  $9 \times 2$ ,  $9 \times 0.1$ ,  $9 \times 0.03$ ,  $9 \times 2.13$ ,  $4.012 \times 4$ ,  
and  $5 \times 3.2375$ .

**Add and Subtract Decimals**

Materials: (S) Personal white board

- T: (Write  $7$  ones +  $258$  thousandths +  $1$  hundredth =  $\underline{\quad}$ .) Write the addition sentence in decimal form.
- S: (Write  $7 + 0.258 + 0.01 = 7.268$ .)

More practice!

$7$  ones +  $258$  thousandths +  $3$  hundredths,  
 $6$  ones +  $453$  thousandths +  $4$  hundredths,  
 $2$  ones +  $37$  thousandths +  $5$  tenths, and  
 $6$  ones +  $35$  hundredths +  $7$  thousandths.

- T: (Write  $4$  ones +  $8$  hundredths  $- 2$  ones =  $\underline{\quad}$  ones  $\underline{\quad}$  hundredths.) Write the subtraction sentence in decimal form.
- S: (Write  $4.08 - 2 = 2.08$ .)

More practice!

$9$  tenths +  $7$  thousandths  $- 4$  thousandths,  
 $4$  ones +  $582$  thousandths  $- 3$  hundredths,  
 $9$  ones +  $708$  thousandths  $- 4$  tenths, and  
 $4$  ones +  $73$  thousandths  $- 4$  hundredths.

fluency activities

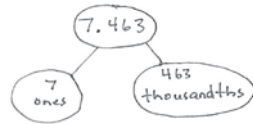
### Decompose Decimals

Materials: (S) Personal white board

T: (Project 7.463.) Say the number.

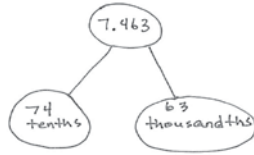
S: 7 and 463 thousandths.

T: Represent this number in a two-part number bond with ones as one part and thousandths as the other part.



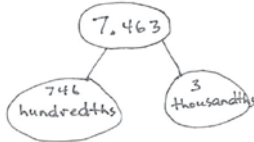
S: (Draw.)

T: Represent it again with tenths and thousandths.



S: (Draw.)

T: Represent it again with hundredths and thousandths.



More practice!

8.972 and 6.849.

### Find the Volume

Materials: (S) Personal white board

T: On your personal white board, write the formula for finding the volume of a rectangular prism.

S: (Write  $V = l \times w \times h$ .)

T: (Draw and label a rectangular prism with a length of 5 cm, width of 6 cm, and height of 2 cm.) Write a multiplication sentence to find the volume of this rectangular prism.

S: (Beneath  $V = l \times w \times h$ , write  $V = 5 \text{ cm} \times 6 \text{ cm} \times 2 \text{ cm}$ . Beneath it, write  $V = 60 \text{ cm}^3$ .)

More practice!

$l = 7 \text{ ft}$ ,  $w = 9 \text{ ft}$ ,  $h = 3 \text{ ft}$ ;

$l = 6 \text{ in}$ ,  $w = 6 \text{ in}$ ,  $h = 5 \text{ in}$ ; and

$l = 4 \text{ cm}$ ,  $w = 8 \text{ cm}$ ,  $h = 2 \text{ cm}$ .

### Make a Like Unit

Materials: (S) Personal white board

T: I'll say two unit fractions. You make the like unit, and write it on your personal white board. Show your board at the signal.

T:  $\frac{1}{3}$  and  $\frac{1}{2}$ . (Pause. Signal.)

S: (Write and show sixths.)

More practice!

$\frac{1}{4}$  and  $\frac{1}{3}$ ,  $\frac{1}{2}$  and  $\frac{1}{4}$ ,  $\frac{1}{6}$  and  $\frac{1}{2}$ ,  $\frac{1}{3}$  and  $\frac{1}{12}$ ,  $\frac{1}{6}$  and  $\frac{1}{8}$ , and

$\frac{1}{3}$  and  $\frac{1}{9}$ .

### Unit Conversions

Materials: (S) Personal white board

T: (Write  $12 \text{ in} = \underline{\hspace{1cm}} \text{ ft}$ .) On your personal white board, write 12 inches is the same as how many feet?

S: (Write 1 foot.)

More practice!

24 in, 36 in, 54 in, and 76 in.

T: (Write  $1 \text{ ft} = \underline{\hspace{1cm}} \text{ in}$ .) Write 1 foot is the same as how many inches?

S: (Write 12 inches.)

More practice!

2 ft, 2.5 ft, 3 ft, 3.5 ft, 4 ft, 4.5 ft, 9 ft, and 9.5 ft.

fluency activities

**Compare Decimal Fractions**

Materials: (S) Personal white board

T: (Write  $13.78$  \_\_\_  $13.86$ .) On your personal white board, compare the numbers using the greater than, less than, or equal sign.

S: (Write  $13.78 < 13.86$ .)

More practice!

$0.78$  \_\_\_  $\frac{78}{100}$ ,  $439.3$  \_\_\_  $4.39$ ,  $5.08$  \_\_\_ fifty-eight tenths, and thirty-five and 9 thousandths \_\_\_ 4 tens.

**Round to the Nearest One**

Materials: (S) Personal white board

T: (Write 3 ones 2 tenths.) Write 3 ones and 2 tenths as a decimal.

S: (Write 3.2.)

T: (Write  $3.2 \approx$  \_\_\_.) Round 3 and 2 tenths to the nearest whole number.

S: (Write  $3.2 \approx 3$ .)

More practice!

3.7, 13.7, 5.4, 25.4, 1.5, 21.5, 6.48, 3.62, and 36.52.

**Multiplying Fractions**

Materials: (S) Personal white board

T: (Write  $\frac{1}{2} \times \frac{1}{3} =$  \_\_\_.) Write the complete multiplication sentence.

S: (Write  $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$ .)

T: (Write  $\frac{1}{2} \times \frac{3}{4} =$  \_\_\_.) Write the complete multiplication sentence.

S: (Write  $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ .)

T: (Write  $\frac{2}{5} \times \frac{2}{3} =$  \_\_\_.) Write the complete multiplication sentence.

S: (Write  $\frac{2}{5} \times \frac{2}{3} = \frac{4}{15}$ .)

More practice!

$\frac{1}{2} \times \frac{1}{5}$ ,  $\frac{1}{2} \times \frac{3}{5}$ ,  $\frac{3}{4} \times \frac{3}{5}$ ,  $\frac{4}{5} \times \frac{2}{3}$ , and  $\frac{3}{4} \times \frac{5}{6}$ .

**Divide Whole Numbers by Unit Fractions**

Materials: (S) Personal white board

T: (Write  $1 \div \frac{1}{2}$ .) How many halves are in 1?

S: 2.

T: (Write  $1 \div \frac{1}{2} = 2$ . Beneath it, write  $2 \div \frac{1}{2}$ .) How many halves are in 2?

S: 4.

T: (Write  $2 \div \frac{1}{2} = 4$ . Beneath it, write  $3 \div \frac{1}{2}$ .) How many halves are in 3?

S: 6.

T: (Write  $3 \div \frac{1}{2} = 6$ . Beneath it, write  $7 \div \frac{1}{2}$ .) Write the complete division sentence.

S: (Write  $7 \div \frac{1}{2} = 14$ .)

More practice!

$1 \div \frac{1}{3}$ ,  $2 \div \frac{1}{5}$ ,  $9 \div \frac{1}{4}$ , and  $3 \div \frac{1}{8}$ .

fluency activities

**Math Pictionary:**

Number of players: 4–8

Materials: Blank paper, timer, pencils

- Players divide into two teams. The vocabulary term cards are placed facedown in a pile.
- A player from Team A chooses a card, silently reads the card, and draws a picture to represent the term on the card.
- As soon as the player silently reads the card, Team B starts the 30-second timer.
- Team A players use the drawing to figure out the term before the timer sounds.
- If the members of Team A correctly guess the term, they score a point for their team.
- However, the *first* wrong guess from Team A passes play to Team B. Team B then draws a picture to steal the point from Team A.
- Play continues with teams taking turns drawing until all cards have been used. The team with the most points wins.

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math Pictionary directions

		Math BINGO!		

		Math BINGO!		

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bingo card