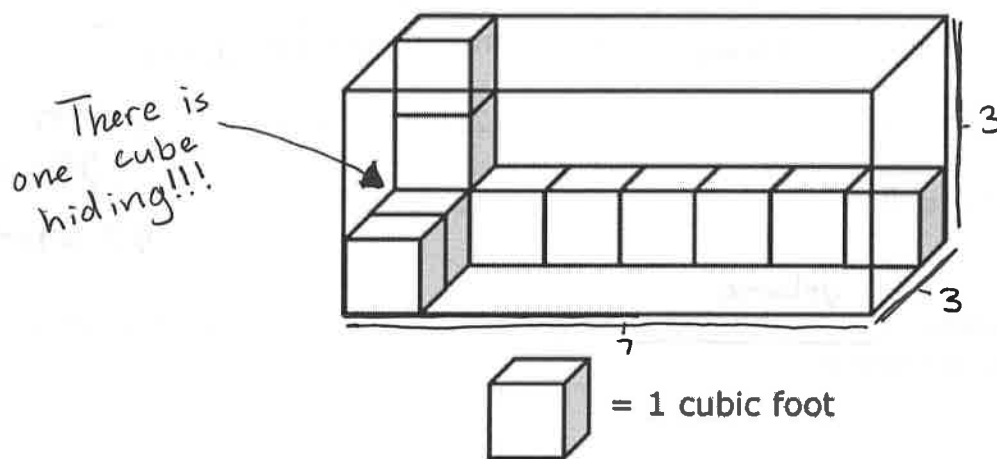Name **Key**   Period_____ Date_____

DRAFT Bundle 11 Test Review
Bring to class completed: Monday Mar. 5th
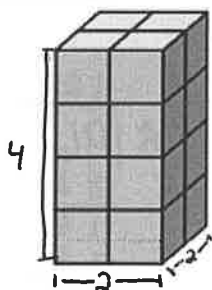**Due on Test Day: Tuesday Mar. 6th**

1. Marissa has a rectangular prism shaped toy chest. She is putting her cubes in the box as pictured below. Each cube has an edge length of 1 foot.

There is one cube hiding!!!

3

3

7

☐ = 1 cubic foot

$V = l \times w \times h$

$7 \times 3 \times 3$

21×3

$V = 63 \, ft^3$

What is the volume, in cubic feet, of Marissa's toy chest?

A   24 cubic feet

B   36 cubic feet

C   54 cubic feet

D   63 cubic feet

2. How many unit cubes were used to make the solid figure shown below?

4

2

$V = l \times w \times h$

$V = 2 \times 2 \times 4$

4×4

$V = 16 \, cubic \; units$

$$A = l \times w$$

3.   The model below represents the <u>area of the base</u> of Sam's rectangular prism.

2 [grid: 2 by 14]

2×14

$A = 28$

14

□ = 1 square unit

Sam used unit cubes to build a rectangular prism. He made the prism 3 <u>layers high</u>. What is the <u>volume</u> of Sam's prism? $V = l \times w \times h$

Ⓐ   84 cubic units   B   252 cubic units $V = Bh$

C   31 cubic units   D   16 cubic units $= 28 \times 3$

$V = 84$ cubic units

Volume

4.   Mrs. Gary wants to <u>fill the box below</u>. She needs to know what the volume of the box is before she fills it.

[box: 6 cm, 10 cm, 16 cm]

$V = l \times w \times h$

$= 16 \times 10 \times 6$

$= 160 \times 6$

$= \boxed{960 \, cm^3}$

What is the <u>volume</u> of the box?

8 sides

5.   A <u>stop sign</u> is a <u>regular octagon</u>. The <u>perimeter</u> of a stop sign is <u>96 inches.</u> What is the <u>length of each side</u>?

```
    1 2
  8 ) 96
    -8 ↓
    ‾‾‾
     1 6
    -1 6
    ‾‾‾
       0
```

$\boxed{12 \ inches}$

6. A rectangular billboard is 9.35 meters wide and 6.82 meters tall. What is the perimeter of the billboard in meters?

Record your answer and fill in the bubbles on the grid. Be sure to use the correct place value.

9.35m

6.82m

$\begin{array}{r} {}^{1}\,{}^{1}\\ 18.70\\ 13.64\\ \hline 32.34 \end{array}$

32.34m

	3	2	.	3	4
⓪	⓪	⓪		⓪	⓪
①	①	①		①	①
②	②	②		②	②
③	③	③		③	③
④	④	④		④	④
⑤	⑤	⑤		⑤	⑤
⑥	⑥	⑥		⑥	⑥
⑦	⑦	⑦		⑦	⑦
⑧	⑧	⑧		⑧	⑧
⑨	⑨	⑨		⑨	⑨
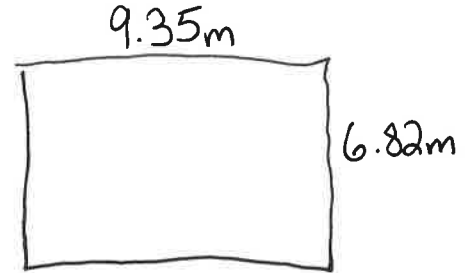
$\begin{array}{r} {}^{1}\\ 9.35\\ \times\ \ 2\\ \hline 18.70 \end{array}$

$\begin{array}{r} {}^{1}\\ 6.82\\ \times\ \ 2\\ \hline 13.64 \end{array}$

7. The polygon shown below has a perimeter of 108 units.

24

12

24

6

6

x

6

18

X = 12units

$\begin{array}{r} 3\\ 24\\ 24\\ 12\\ 6\\ 6\\ 6\\ +18\\ \hline 96 \end{array}$

8, 10, 16, 22, 28, 36
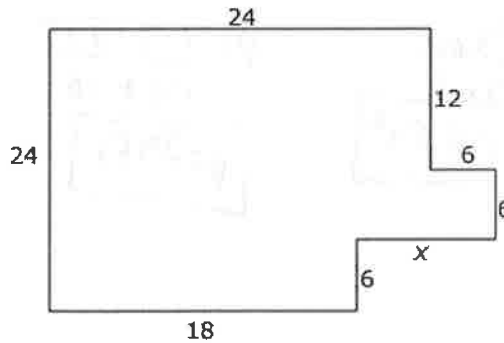
$\begin{array}{r} 108\\ -96\\ \hline 12\ units \end{array}$

What is the length of x?

8. The picture below shows the dimensions of a cardboard box shaped like a rectangular prism.
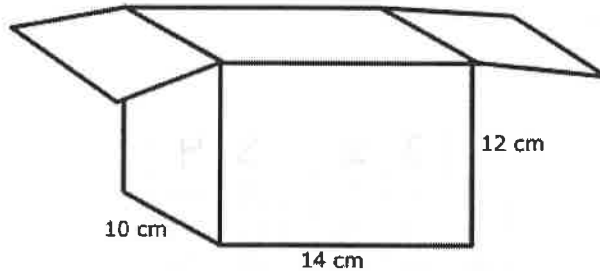
What is the volume of the box?

$V = l \times w \times h$

$14 \times 10 \times 12$

140×12

$V = \boxed{1680 \, cm^3}$

9. Mrs. Rice has a rectangular tulip garden that is 3 feet wide and 7 feet long. If she makes the garden 5 feet wide and keeps the same length, what will be the new area and perimeter of her tulip garden?
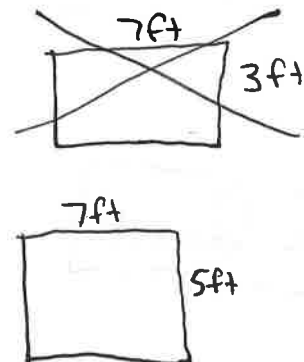
$A = l \times w$

$= 7 \times 5$

$\boxed{A = 35 \, ft^2}$

$P = 7 + 7 + 5 + 5$

$14 + 10$

$\boxed{P = 24 \, ft}$

10. Joey wants to make a rectangular prism 4 inches tall using 1-inch cubes. He has decided to use exactly 48 cubes. How many cubes would be in one layer?

$V = l \times w \times h$

$V = B \times h$

$48 = B \times 4$

$4 \overline{)48} \quad 12$

$\boxed{12 \, cubes}$

11. Miranda made a rectangular prism using 1-centimeter cubes.

$$2$$

$$V = 3 \times 4 \times 4$$
$$12 \times 4$$
$$= 48$$

$$4$$
$$3$$
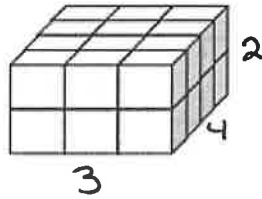
If Miranda added 2 more layers, what would be the volume of the new rectangular prism?
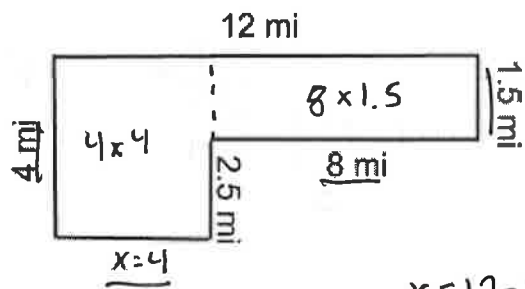
$$48 \, cm^3$$

12. Jace built the rectangular prism below using 1-inch building blocks.

$$7$$
$$5$$
$$4$$
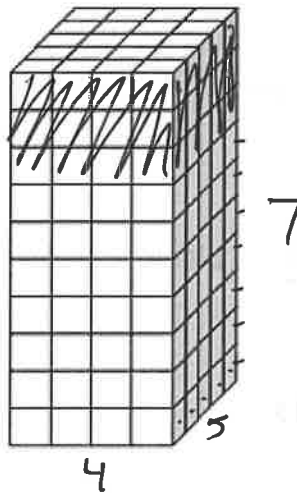
His sister broke the top three layers off his rectangular prism. What is the new volume of his rectangular prism?

$$V = l \times w \times h$$
$$= 4 \times 5 \times 7$$
$$20 \times 7$$
$$V = 140 \, in^3$$

13. The picture below represents a plot of land for sale.

12 mi

8 × 1.5

1.5 mi

4 mi

4×4

2.5 mi

8 mi

X=4

$x = 12 - 8$
$x = 4$

What is the perimeter and area of the plot of land for sale?

$P = 4 + 4 + 2.5 + 8 + 1.5 + 12$

$8 + 10.5 + 13.5$

$18.5 + 13.5$

$p = 32.0 \text{ miles}$

$\ell \times m \qquad \ell \times m$
$A = (4 \times 4) + (8 \times 1.5)$

$16 + 12$

$A = 28 \text{ miles}^2$

Perimeter: __32__ miles   Area: __28__ square miles

14. An average ant is $\frac{1}{4}$ inch long. A picnic blanket is 68 inches long. How many ants long is the picnic blanket?

1   2   3   4 ants

0   ¼   2/4   3/4   1 in.
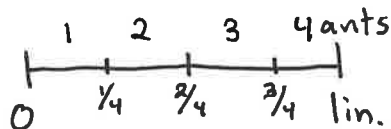
$68 \div \frac{1}{4} = 272$

$1 \text{ in.} = 4 \text{ ants}$
$68 \text{ in} = 272 \text{ ants}$

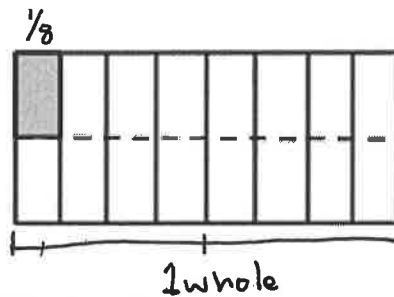15. In the following diagram each box represents a specific group of Quadrilaterals.

```
┌─────────────────────────────────────────────────┐
│                  Quadrilaterals                  │
│  ┌───────┐   ┌───────────────────────────────┐  │
│  │       │   │         Parallelograms         │  │
│  │       │   │   ┌───────────────────────┐    │  │
│  │   A   │   │   │       Rectangles       │    │  │
│  │       │   │   │  ┌─────────────────┐  │    │  │
│  │       │   │   │  │     Squares      │  │    │  │
│  │       │   │   │  │  ┌───────────┐  │  │    │  │
│  │       │   │   │  │  │  Rhombus  │  │  │    │  │
│  │       │   │   │  │  └───────────┘  │  │    │  │
│  │       │   │   │  └─────────────────┘  │    │  │
│  │       │   │   └───────────────────────┘    │  │
│  └───────┘   └───────────────────────────────┘  │
└─────────────────────────────────────────────────┘
```
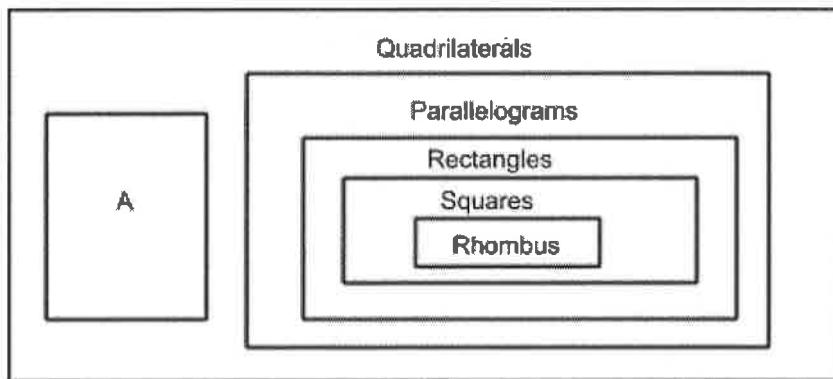
Which answer choice represents the shape that belongs in Box A.

A. (octagon)

B. (circle)   Trapezoid

C. (parallelogram)
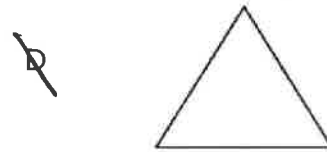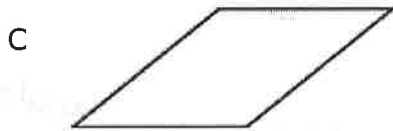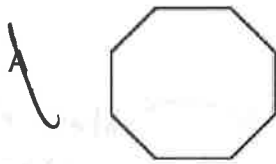
D. (triangle)

16. Which problem does the area model represent?

$\frac{1}{8}$ divided into 2 equal sections

⅛

1 whole
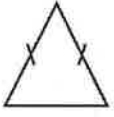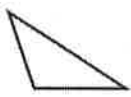
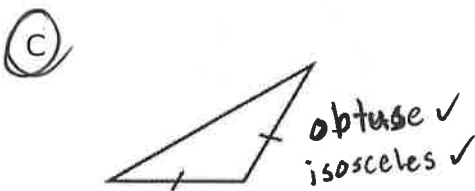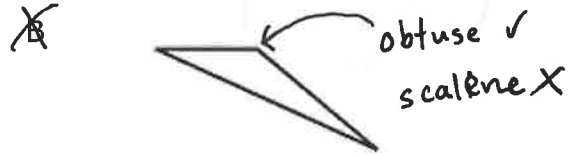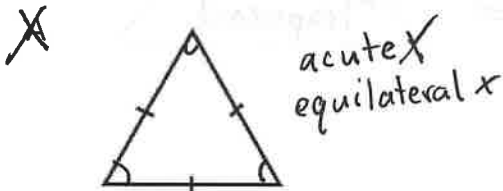(A) $\frac{1}{8} \div 2 = \frac{1}{16}$

B. $\frac{1}{16} \div 8$

C. $\frac{1}{2} \div 16$

D. $16 \div \frac{1}{2}$

17. Patrick made the following table to classify different types of triangles.

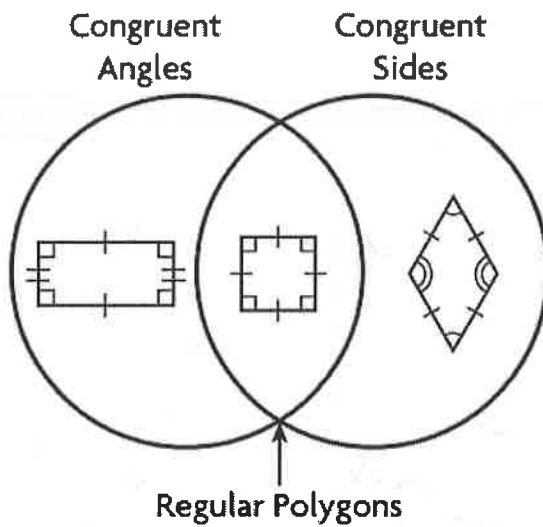| Triangle by Length of Sides		
	Scalene	**Isosceles**
Acute		
Obtuse		**?**

Triangle by Angle Measure

Which triangle completes this table?

A. acute✗ equilateral ✗

B. obtuse ✓ scalene ✗

C. obtuse ✓ isosceles ✓

D. acute ✗ isosceles ✓

18. Use the Venn diagram to answer the following question.

Congruent Angles · Congruent Sides

Regular Polygons

all side are equal

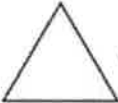Which shape belongs in the section labeled Regular Polygons?
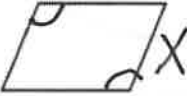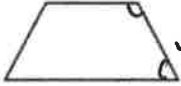
A

B

Ⓒ
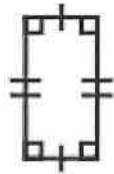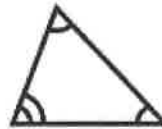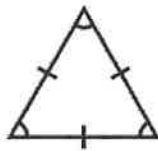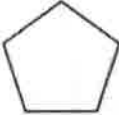
D
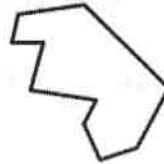
19. Macy classified shapes based on the types of angles they have in the table below:

Angle Types

Right Angles Only	Acute Angles Only	Obtuse Angles Only	Both Acute and Obtuse Angles
Shape 1 ✓	Shape 3 ✓	Shape 5 ✓	Shape 7 ✓
Shape 2 ✓	Shape 4 ✗	Shape 6 ✓	Shape 8 ✓

Which shape did Macy incorrectly place in her table?

(A) Shape 4 ✓   B   Shape 5

C   Shape 7   D   Shape 8

In your own words, explain your answer.

The parallelogram (shape 4) has two obtuse angles.

20. The stem and leaf plot shows the heights of Mr. Peter's sunflowers in his garden.
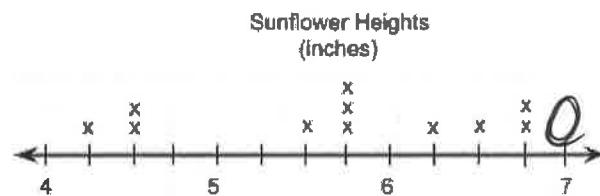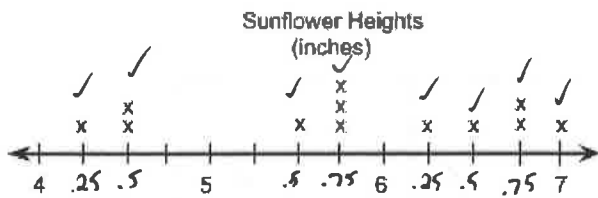
Sunflower Heights
(inches)

Stem	Leaf
4	25 50 50
5	50 75 75 75
6	25 50 75 75
7	0

KEY: 6|75 means 6.75 inches

Which line plot represents the data in the stem and leaf plot?

A

Sunflower Heights
(inches)

4 .25 .5   5   .5 .75 6 .25 .5 .75 7

B

Sunflower Heights
(inches)

4   5   6   7

C

Sunflower Heights
(inches)

4   5 .25 .5   6   7

D

Sunflower Heights
(inches)

4   5   6 .5 .75 7
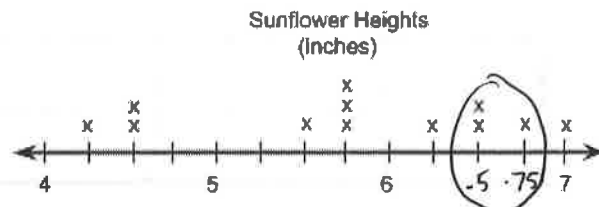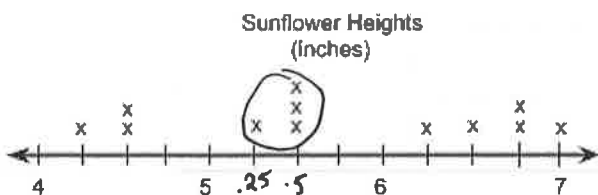
21. The relationship between numbers in List X and List Y follows the rule
$y = x + 1.01.$ Which table shows this relationship?

$1 + 1.01 = 2.01$
$2 + 1.01 = 3.01$

A

List X	1	2	3	4
List Y	1.02	1.03	1.04	1.05

B

List X	1	2	3	4
List Y	1.01	2.02	3.03	4.04

C

List X	1	2	3	4
List Y	2.01 ✓	3.01 ✓	4.01 ✓	5.01 ✓

D

List X	1	2	3	4
List Y	1.11	1.21	1.31	1.41