

**Grade 6 Summer Review Packet  
2019 -2020**



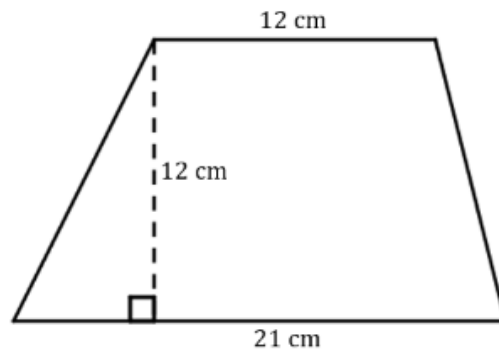
WEEK - 3

NAME: \_\_\_\_\_

DUE: THE FIRST DAY OF SCHOOL

The problems in this packet are designed to help you review topics from previous mathematics courses that are essential to your success in Integrated Math I. **You are expected to bring this completed packet to class on the first day of school.** In addition, this packet will count as part of your first quarter grade. **Upon returning, you will be ASSESSED on the content of this packet.** All contents outlined in the packet are Grade 6 objectives. Neatly **SHOW YOUR WORK** on a separate sheet of paper.

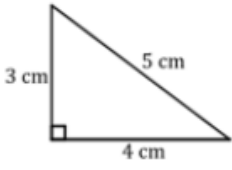
**Q1:** Calculate the area of the trapezoid. Use paper to show your work. The figure is not drawn to scale.



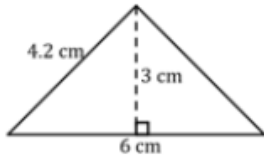
The area of the trapezoid is  cm<sup>2</sup>.

**Q2:** Find the area of each triangle, and order them from least to greatest.

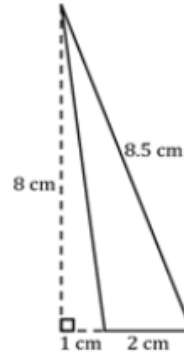
**Triangle 1**



**Triangle 2**



**Triangle 3**



The area of Triangle 1 is   $\text{cm}^2$ .

The area of Triangle 2 is   $\text{cm}^2$ .

The area of Triangle 3 is   $\text{cm}^2$ .

Order the triangles by area, from least to greatest.

Least  ,  ,  Greatest

- a.  Triangle 1  
 Triangle 2  
 Triangle 3

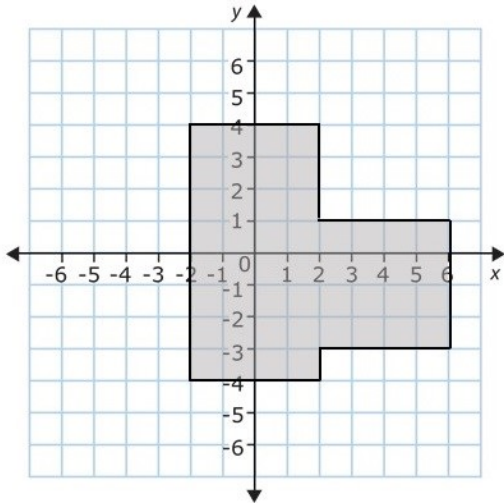
- b.  Triangle 1  
 Triangle 2  
 Triangle 3

- c.  Triangle 1  
 Triangle 2  
 Triangle 3

**Q3:** The area of a right triangle is  $39.6 \text{ in}^2$ , and the base of the triangle is 12 in. Which of the following values is the height of the triangle?

- A 1.65 in.
- B 3.3 in.
- C 6.1 in.
- D 6.6 in.

**Q4:** Consider the figure shown. Note that each square unit is 1 unit in length.



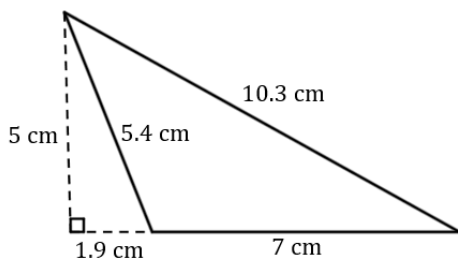
What are the area and perimeter of the figure?

The area is  **a** .

The perimeter is  **b** .

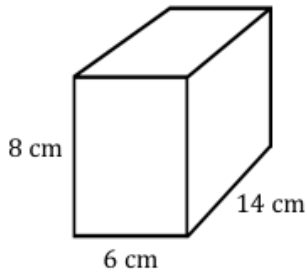
- a.  units  
 square units
- b.  units  
 square units

**Q5:** Which of the following options is the area of the triangle?



- A**  $12.75 \text{ cm}^2$
- B**  $17.5 \text{ cm}^2$
- C**  $18.9 \text{ cm}^2$
- D**  $22.25 \text{ cm}^2$

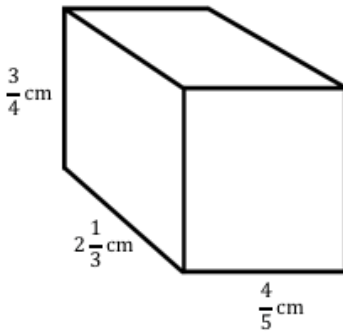
**Q6:** Consider the rectangular prism.



How many cubes with side lengths of  $\frac{1}{2}$  cm can fit inside the rectangular prism?

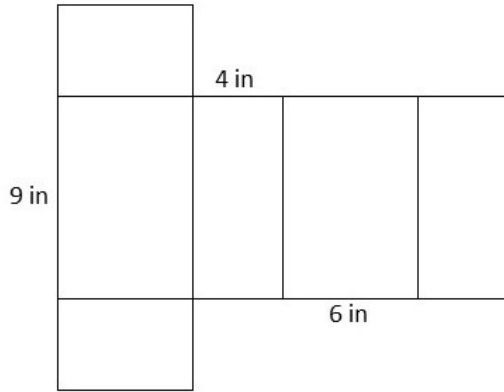
- A** 672 cubes
  - B** 1,344 cubes
  - C** 2,688 cubes
  - D** 5,376 cubes
- 

**Q7:** Which expressions can be used to calculate the volume of the rectangular prism?



- A**  $(\frac{28}{15} \text{ cm}^2) (\frac{3}{4} \text{ cm})$
  - B**  $\frac{3}{4} \text{ cm} + 2\frac{1}{3} \text{ cm} + \frac{4}{5} \text{ cm}$
  - C**  $(2\frac{1}{3} \text{ cm}) (\frac{4}{5} \text{ cm})$
  - D**  $(\frac{21}{12} \text{ cm}^2) (\frac{3}{4} \text{ cm})$
  - E**  $(\frac{4}{5} \text{ cm}) (\frac{3}{4} \text{ cm}) (2\frac{1}{3} \text{ cm})$
-

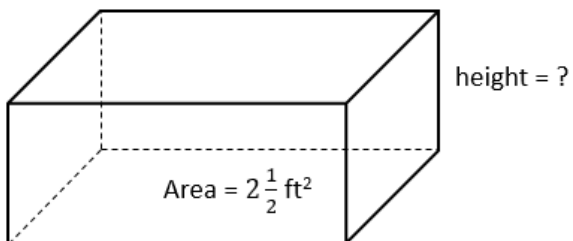
**Q8:** Use the net to determine the surface area of the figure.



The surface area is   .

- a.
- inches
  - square inches
  - cubic inches

**Q9:** A planter box can hold  $3\frac{3}{8}$  ft<sup>3</sup> of soil. The area of the base of the box is  $2\frac{1}{2}$  ft<sup>2</sup>. A sketch of the box is shown.



Determine the height of the box.

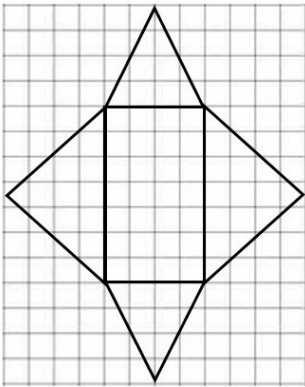
The height of the box is  feet.

**Q10:** A rectangle is plotted on a coordinate plane. The four vertices are located at  $(-5, 5)$ ,  $(-5, -3)$ ,  $(2, 5)$ , and  $(2, -3)$ . What is the area of the rectangle?

The area of the rectangle is  square units.

- a.  6  
 14  
 24  
 56

**Q11:** Consider the net shown. Assume each box on the grid paper represents a  $1 \text{ cm} \times 1 \text{ cm}$  square.



**Part A**

What is the name of the figure? Select your answer from the drop-down list.

The figure is a .

**Part B**

What is the surface area of the figure?

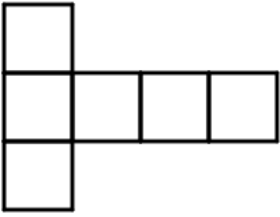
The surface area is  .

- a.  rectangular pyramid  
 triangular pyramid  
 rectangular prism  
 triangular prism
- b.  centimeters  
 square cen...

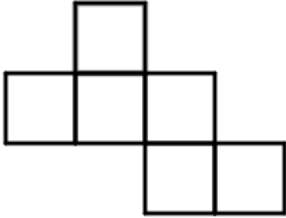


**Q12:** Which of the following nets will form a cube? Select all that apply.

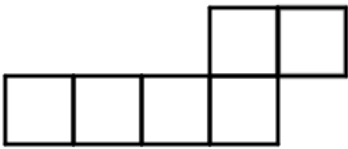
**A**



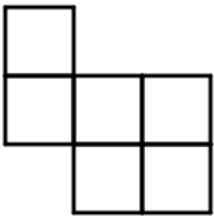
**B**



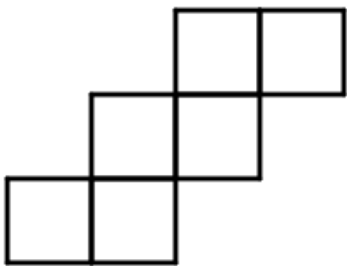
**C**



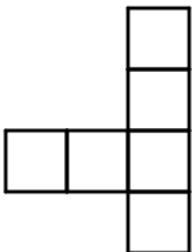
**D**



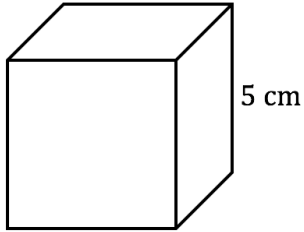
**E**



**F**

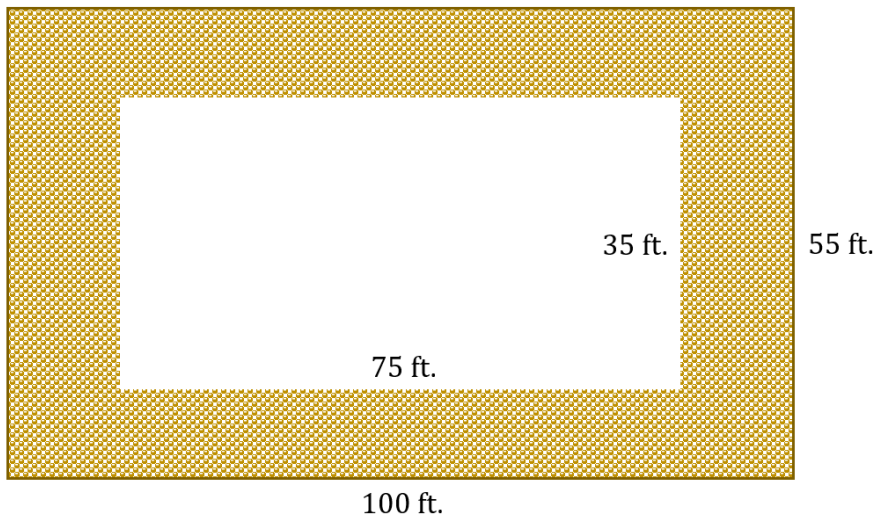


Q13:



- a. The volume of the cube shown is   $\text{cm}^3$ .
- b. The volume of a cube whose side lengths are half as long as the side lengths of the cube shown is   $\text{cm}^3$ .
- c. The volume of a cube whose side lengths are one-fourth as long as the side lengths of the cube shown is   $\text{cm}^3$ .
- d. Explain the relationship between the side lengths and the volumes of the cubes.

**Q14:** Determine the area of the wooded walkway around the courtyard. The courtyard is the white region in the diagram.



The area of the wooded walkway is   $\text{ft}^2$ .