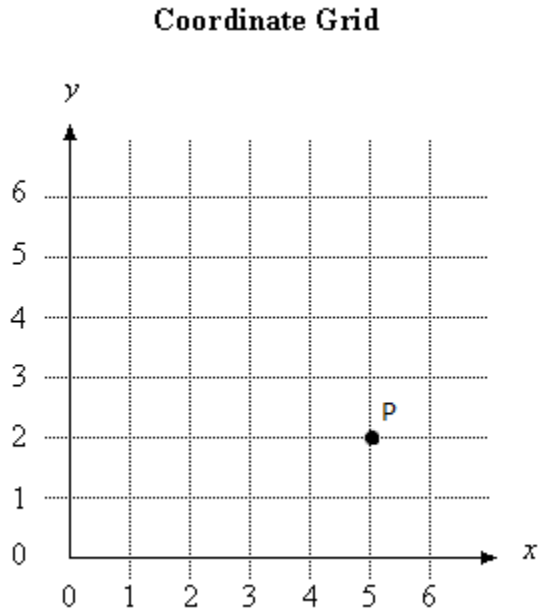
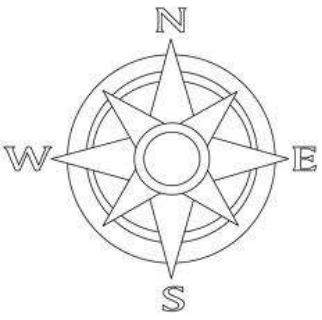
Math 5 Benchmark 3 Study Guide

1. Plot the following points on the coordinate grid below.

C= (3, 4)
A= (1, 2)
B= (2, 3)
D= (,)





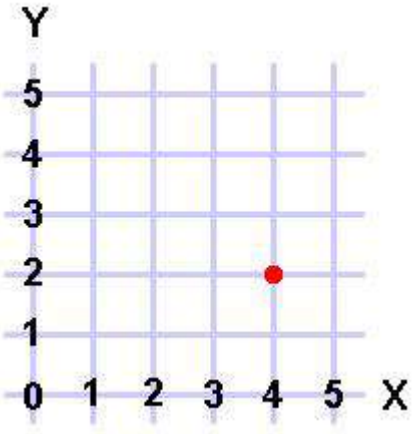
Answer the following questions by using the coordinate grid above.

2. If the pattern continues, what are the coordinates of Point D? **(4,5)**

3. Points A and P are **4** units apart.

4. If point E was 1 unit west and 3 units north of point B, what coordinates would point E have? **(1,6)**

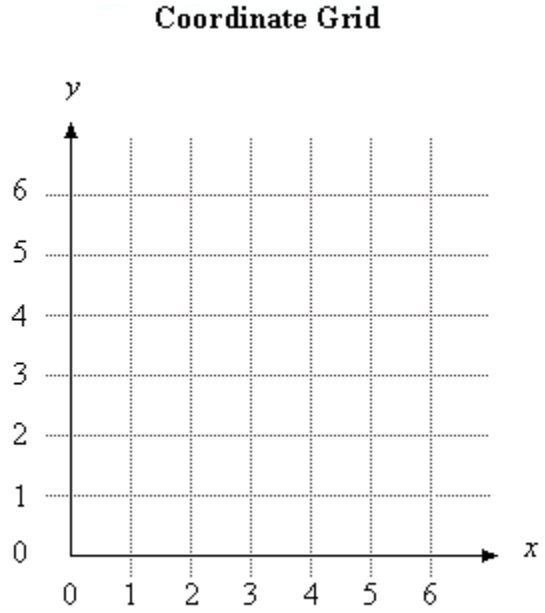
5. Use the graph below to complete the pattern. The point on the grid is located at (4, 2). If the next point is plotted at (4, 3) and the following point plotted at (4, 4), where would the next point be plotted?



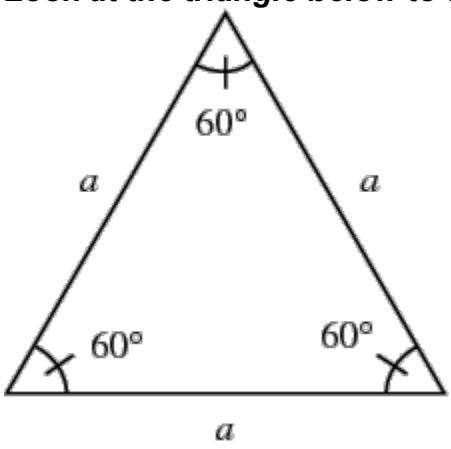
Answer: **(4 , 5)**

6. Use the graph below to complete the pattern.
Plot the following points on the graph:
W= (1, 2) X= (2, 3) Y= (3, 4) Z= _____

Where would point Z be located? **4 , 5**



Look at the triangle below to answer the following questions.

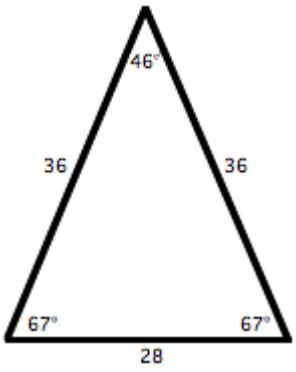


7. Identify the type of triangle based on the lengths of the sides. **Equilateral**

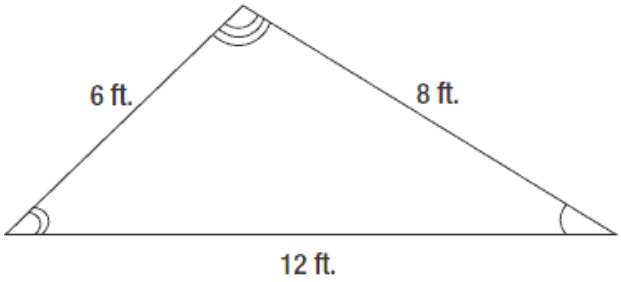
8. Classify the triangle by the measures of its angles. **Acute**

9. What type of triangle is shown below? **Isosceles**

How do you know? **It has two sides of equal length**
Is this an obtuse triangle? **No, because the angles are all acute (less than 90^0)**

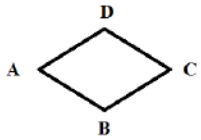


10. When looking at the lengths of the sides, what type of triangle is shown below? **Scalene, because every side is a different length.**



Name the polygons below:

11. **Rhombus**



Is this also a parallelogram? **yes**

Why or why not? **Because it is a quadrilateral with opposite sides that are the same length and parallel.**

12. **Trapezoid**

Is this also a parallelogram? **no**

Why or why not? **Because it only has one set of parallel sides and it needs to have 2 sets.**

13. **Parallelogram**

Is this also a quadrilateral? **yes**

Why or why not? **Because it has four sides.**

14. Which of the following groups is a square not a member of?
A. parallelograms B. rectangles C. quadrilaterals **D. trapezoids**

15. How many grams are equal to 3 kilograms? **Move right 3 spaces and you have 3000 grams**

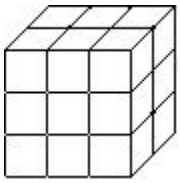
16. How many milliliters equal 4 liters? **Move right 3 spaces and you have 4000 milliliters.**

17. How many ounces would 3 lbs be? **There are 16 ounces in 1 lb. Ounces are smaller so large unit to a small unit you multiply. 3 x 16 = 48 oz**

18. How many yards would 150 feet be? **There are 3 feet in 1 yard. A small unit to a larger unit means divide. 150 ÷ 3 = 50 yards.**

19. If you had a board that was 15 meters long, how many cm long is that board? **Meters to Centimeters means you move decimal 2 spaces to the right: 1500 cm**

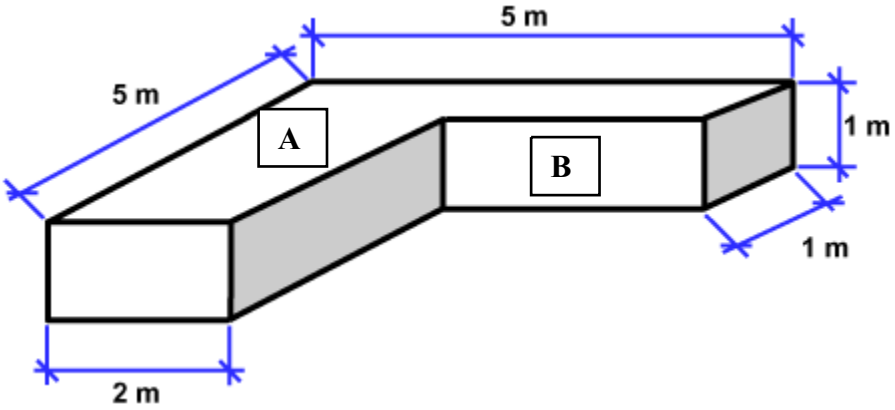
20. What is the volume of the figure to the right?



There are 3 cubes across for length, 2 cubes back for width and 3 cubes up for height.
l x w x h = 3 x 2 x 3 = 18 units^3

21. What is the volume of a figure that is 15 inches long, 4 inches wide, and 12 inches high? **l x w x h = 15 x 4 x 12 = 720 in^3**

22. What is the volume of the figure below?



Reminders: Volume = length x width x height

In figure A you do not have the height. However, in figure B you do and the two are the same height. *Figure (A) l x w x h = 5 x 2 x 1 = 10 m^3*. In Figure B you have a width and a height but not the length. You do have the entire length of the compound figure so you can subtract the 2 m from the 5 m and you get 3 m for your length. Figure (B) l x w x h = 3 x 1 x 1 = 3 m^3. Add the two volumes together for the entire figure. 10 m^3 + 3 m^3 = 13 m^3.