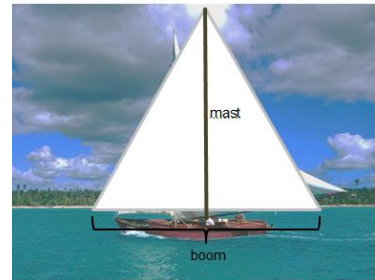


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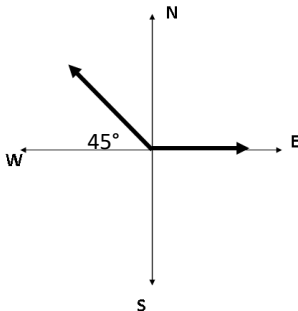
### Finding Area & Perimeter of Regular Polygons in Word Problems.

- \_\_\_\_\_ 1. The boom of a sailboat is 26 feet long. If the sail is an equilateral triangle, how much cloth will be required to make the sail of the boat? Keep your answer exact.

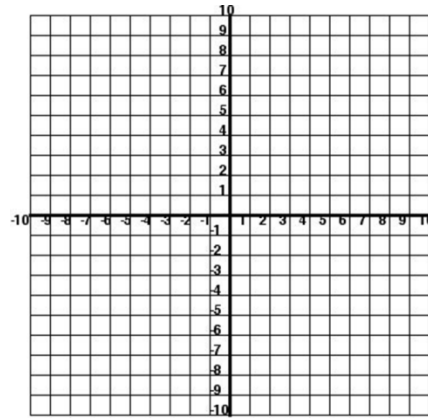


- \_\_\_\_\_ 2. When you buy a TV, the size refers to the diagonal. You have an empty square space in your cabinet that is  $2500 \text{ in}^2$ . You want to buy a 72 inch Plasma High Definition TV to watch the Super Bowl. Will it fit in your cabinet? (HINT: Find the diagonal length of the square opening of the cabinet and compare to TV diagonal)

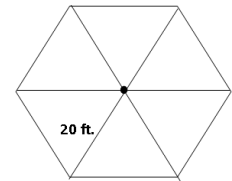
- \_\_\_\_\_ 3. Two ships leave port at same time. Ship x is heading due northwest and ship y is heading due east. The path of ship x and ship y makes two sides of what regular polygon?  
If each side of the regular polygon formed has a length of 200 km, what is its area? Round to the nearest hundredth.



4. Given points  $A(-1,0)$ ,  $B(1,0)$ ,  $C(0, 1.7)$  graph the triangle created. What is the area of  $\triangle ABC$ ? Round to the nearest tenth.



5. Carnival Fun is building a hexagonal Ferris wheel with radius 20 feet. They need to buy pipe to go around the perimeter of the Ferris wheel. How many feet of pipe should they buy?



6. A baseball diamond is a square with  $45\sqrt{2}$  feet from the pitcher's mound to home. What is the area of the interior of a baseball diamond?



7. The sum of all of the sides of a stop sign is 96 inches. What is the area of a stop sign? Round to the nearest hundredth.

