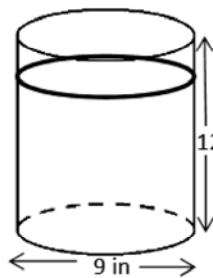


Answer each problem completely.

- Write your answers in complete sentences.
- Include units with your answers.
- Show your work clearly.
- Explain your thinking and work with complete sentences where appropriate.
- Round answers to nearest tenth if necessary.

**Free Response #1**

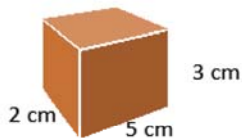


The water surface is 2.5 inches from the top of the can.

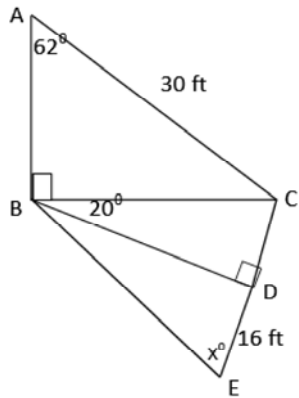
a) How much water is in the can?

b) You have 5 bottles of water that are 32 fluid ounces each. If you pour them all in will the can overflow? (1 cubic inch of water is 0.554 fluid ounces)

You bought a gift for your mom that came in the box below. You forgot to buy wrapping paper but you found a scrap of wrapping paper that measures 3 inches by 3 inches. Do you have enough to wrap the gift? (2.54 cm is equal to one inch.)



**Free Response #2**



a. Find  $m\angle BCA$

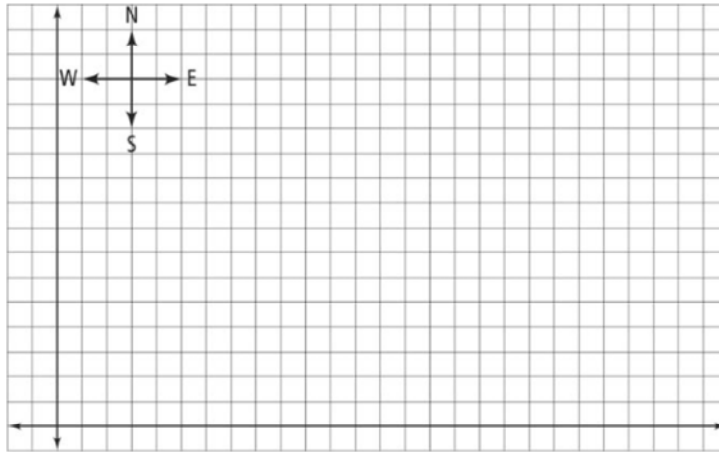
b. Find  $BC$ ,  $CD$ , and  $BD$ .

c. Find  $x$ .

d. Find  $BE$ .

**Free Response #3**

Mary takes walks throughout her neighborhood every evening. She walks to the park which is 3 blocks due east from her house. She then walks along the edge of the park due north for 4 blocks to the playground. She continues due north for 6 blocks. She then turns due east and walks for 8 blocks. She then takes a path directly back to the playground. Then she returns directly to her house on a trail.



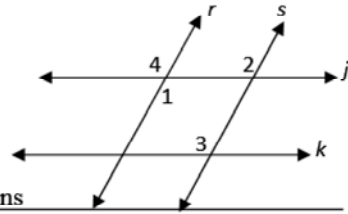
1. Use the coordinate grid above. Place Mary's house at the origin. Plot Mary's walking route.
2. How far does Mary walk every evening?

**Free Response #4**

Complete the following proof.

Given:  $r \parallel s$  and  $m\angle 1 = m\angle 3$

Prove:  $j \parallel k$



Statements	Reasons