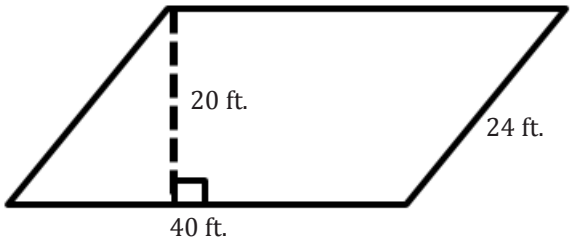
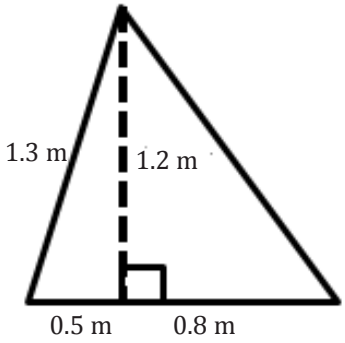
Problem Set

This Problem Set is a culmination of skills learned in this module. Note that the figures are not drawn to scale.

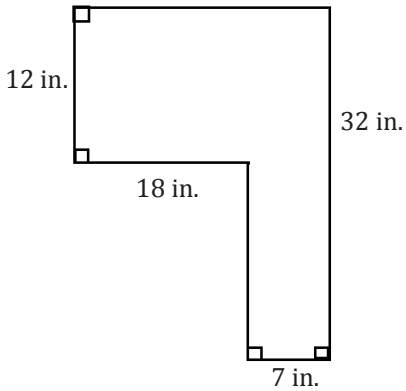
1. Calculate the area of the figure below.



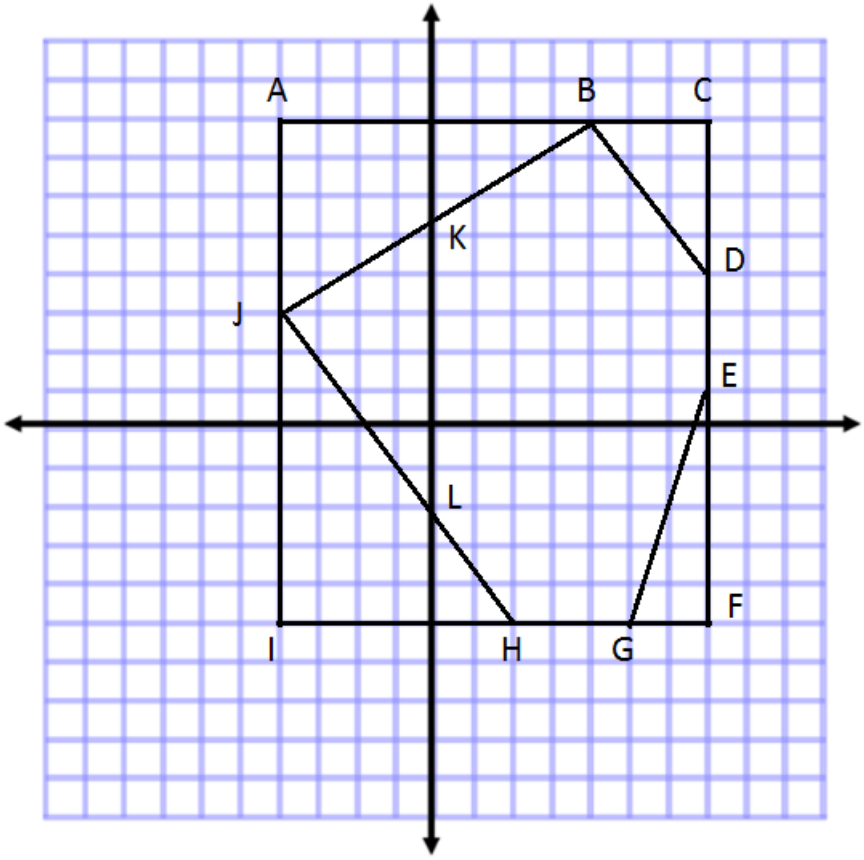
2. Calculate the area of the figure below.



3. Calculate the area of the figure below.



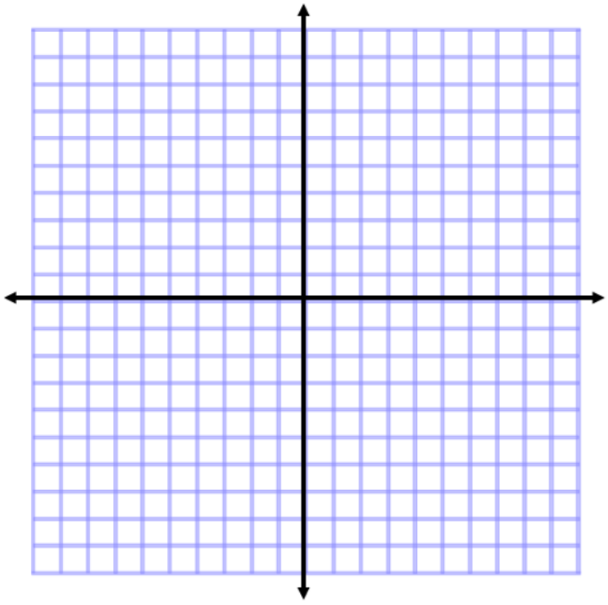
4. Complete the table using the diagram on the coordinate plane.



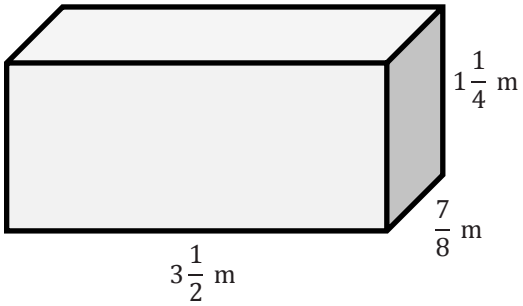
Line Segment	Point	Point	Distance	Proof
$\overline{AB}$				
$\overline{CE}$				
$\overline{GI}$				
$\overline{HI}$				
$\overline{IJ}$				
$\overline{AI}$				
$\overline{AJ}$				

5. Plot the points below, and draw the shape. Then, determine the area of the polygon.

$A(-3, 5)$, $B(4, 3)$, $C(0, -5)$

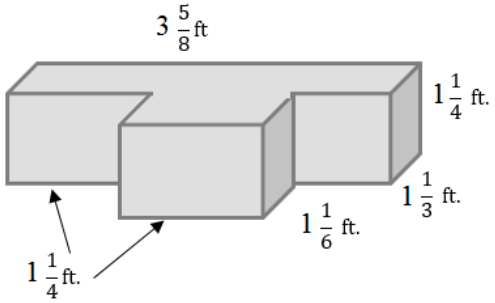


6. Determine the volume of the figure.

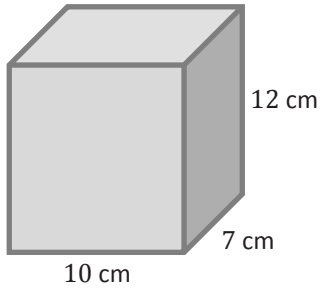


7. Give at least three more expressions that could be used to determine the volume of the figure in Problem 6.

8. Determine the volume of the irregular figure.



9. Draw and label a net for the following figure. Then, use the net to determine the surface area of the figure.



10. Determine the surface area of the figure in Problem 9 using the formula $SA = 2lw + 2lh + 2wh$. Then, compare your answer to the solution in Problem 9.

11. A parallelogram has a base of 4.5 cm and an area of 9.495 cm^2. Tania wrote the equation $4.5x = 9.495$ to represent this situation.
    a. Explain what x represents in the equation.
    b. Solve the equation for x and determine the height of the parallelogram.

12. Triangle A has an area equal to one-third the area of Triangle B. Triangle A has an area of $3\frac{1}{2}$ square meters.
    a. Gerard wrote the equation $\frac{B}{3} = 3\frac{1}{2}$. Explain what B represents in the equation.
    b. Determine the area of Triangle B.