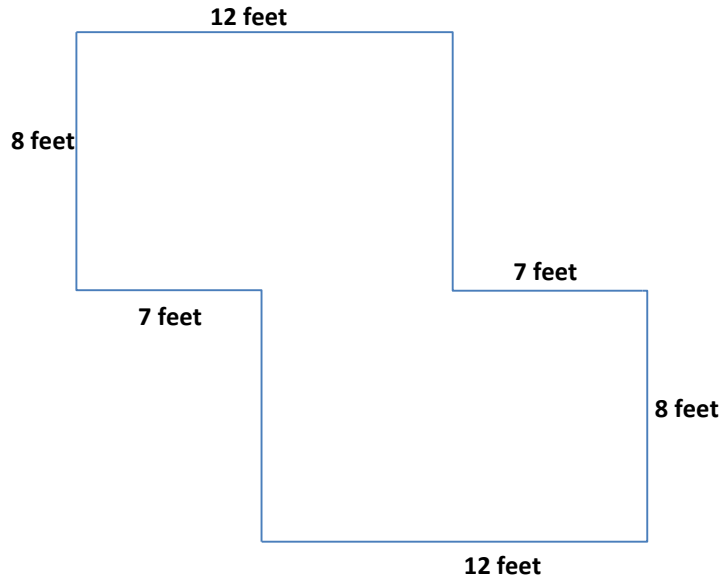


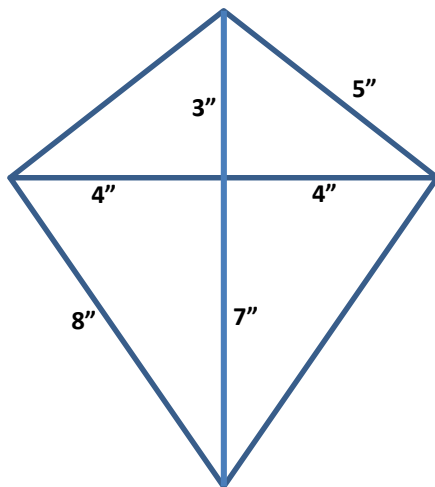
**Allow area chart to be used for each question.**

**#1.** Find the area of the following figures.

Mark any decomposition you make on the figure. Label any dimensions not on the figure that use. Use the area chart.

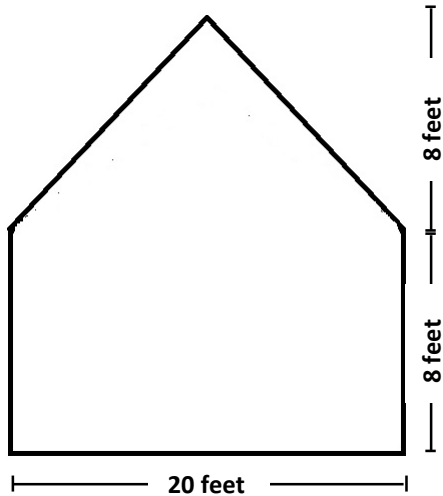


**#2.** How many square inches of paper will you need to make this mini kite?



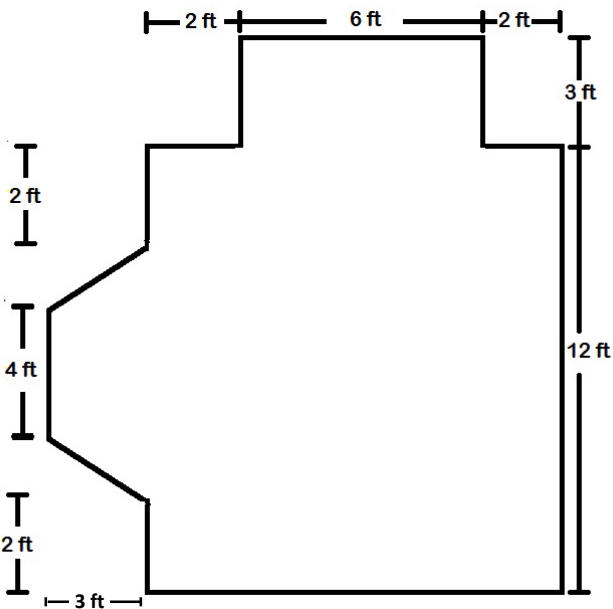
#3

Mr. Smith is buying siding to cover the back wall of his garage. How many square feet of siding will he need?



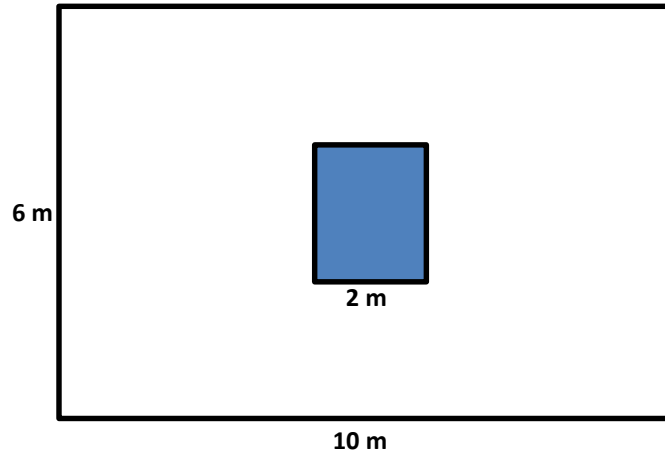
#4

Felicia is getting new carpet for her bedroom. The floor plan of her room is below. Use it to determine how many square feet of carpet she will need.

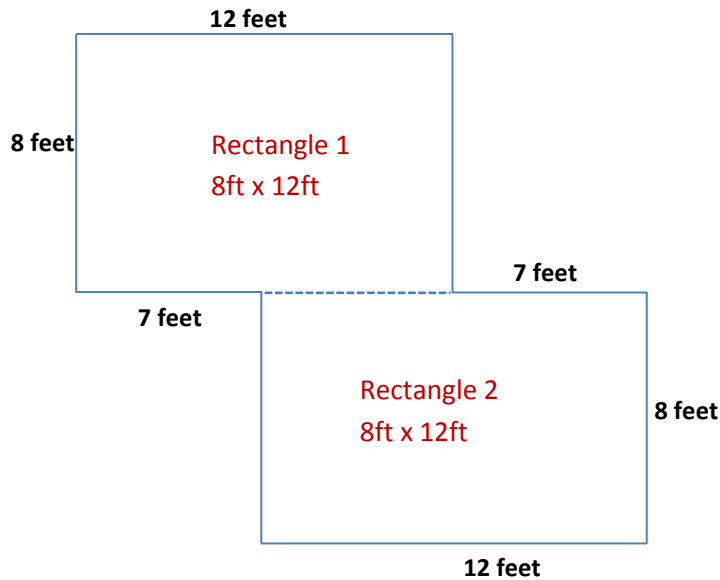


#5)

Below is a diagram of a rose garden. The shaded area in the center is a square fountain; it is not a flower bed. What is the area of the flower bed?



#1 Possible decomposition of the polygon.

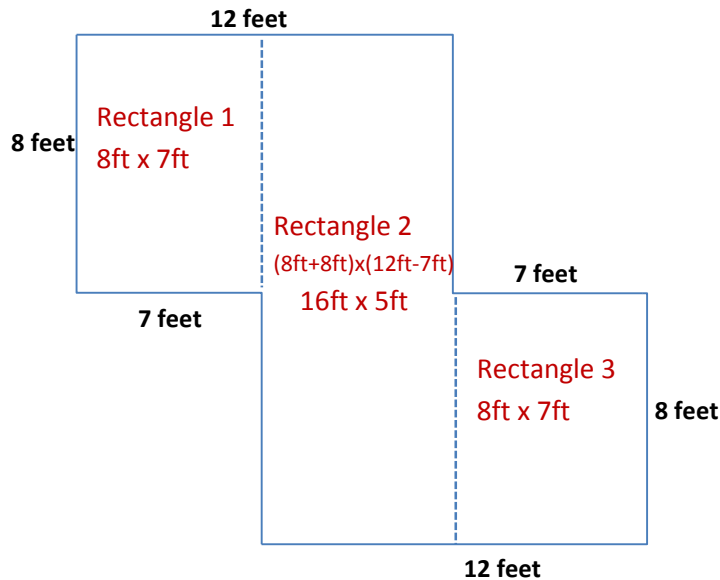


Area of rectangle 1 =  $8\text{ft} \times 12\text{ft}$   
 Area of rectangle 1 =  $96\text{ft}^2$

Area of rectangle 2 =  $8\text{ft} \times 12\text{ft}$   
 Area of rectangle 2 =  $96\text{ft}^2$

Area of polygon = Rectangle 1 + rectangle 2  
 Area of polygon =  $96\text{ft}^2 + 96\text{ft}^2$   
 Area of polygon =  $192\text{ft}^2$

OR



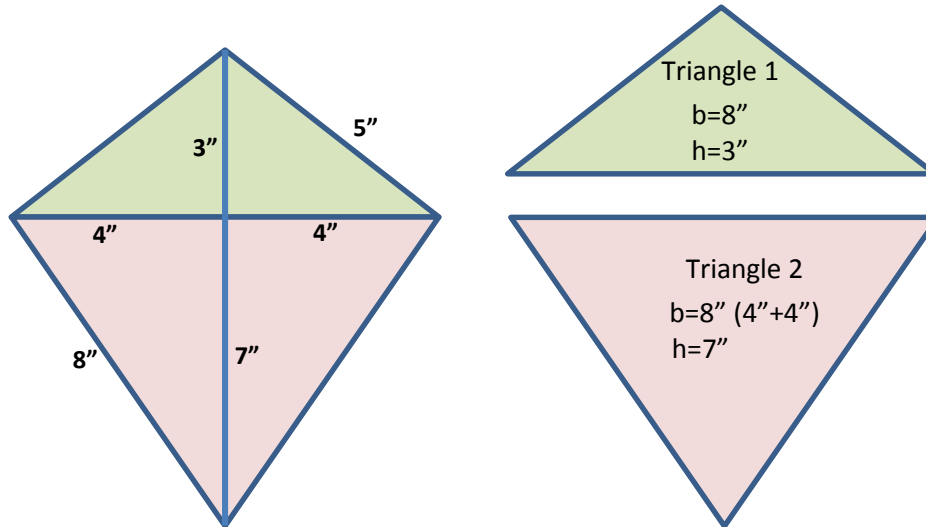
Area of rectangle 1 =  $8\text{ft} \times 7\text{ft}$   
 Area of rectangle 1 =  $56\text{ft}^2$

Area of rectangle 2 =  $16\text{ft} \times 5\text{ft}$   
 Area of rectangle 2 =  $80\text{ft}^2$

Area of rectangle 3 =  $8\text{ft} \times 7\text{ft}$   
 Area of rectangle 3 =  $56\text{ft}^2$

Area of polygon = Rectangle 1 + rectangle 2 + rectangle 3  
 Area of polygon =  $56\text{ft}^2 + 80\text{ft}^2 + 56\text{ft}^2$   
 Area of polygon =  $192\text{ft}^2$

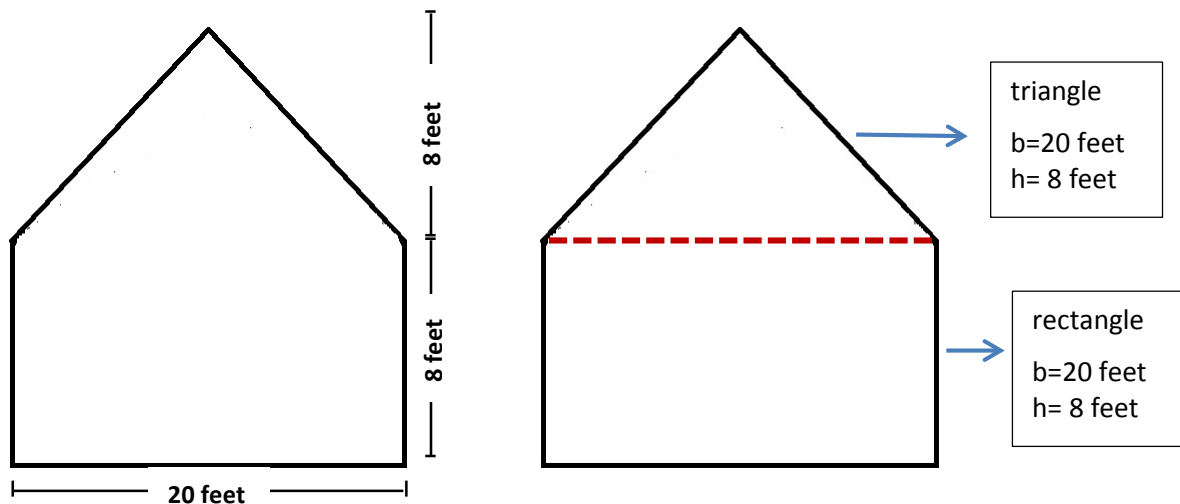
#2 Possible decomposition of the kite



Area of a triangle =  $\frac{1}{2} (b)(h)$   
 Area of triangle 1 =  $\frac{1}{2}(8'')(3'') = 24\text{in}^2$   
 Area of triangle 2 =  $\frac{1}{2}(8'')(7'') = 56\text{in}^2$

Area of the kite = area of triangle1 + area of triangle 2  
 Area of the kite =  $24\text{in}^2 + 56\text{in}^2$   
 Area of the kite =  $80\text{in}^2$

#3 Possible decomposition of the garage wall.

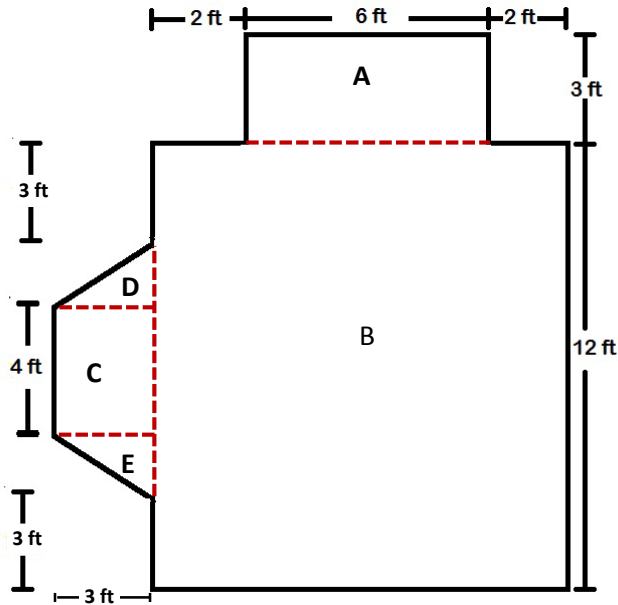


Area of a triangle =  $\frac{1}{2} (b)(h)$   
 Area of the triangle =  $\frac{1}{2}(20 \text{ feet})(8\text{feet})$   
 Area of the triangle =  $80 \text{ feet}^2$

Area of a rectangle =  $(l)(w) = (b)(h)$   
 Area of the rectangle =  $(20 \text{ feet})(8 \text{ feet})$   
 Area of the rectangle =  $160 \text{ feet}^2$

Area of the wall = area of the triangle + area of the rectangle  
 Area of the wall =  $80 \text{ feet}^2 + 160 \text{ feet}^2$   
 Area of the wall =  $240 \text{ feet}^2$

**#4 Possible decomposition of the bedroom floor plan:**

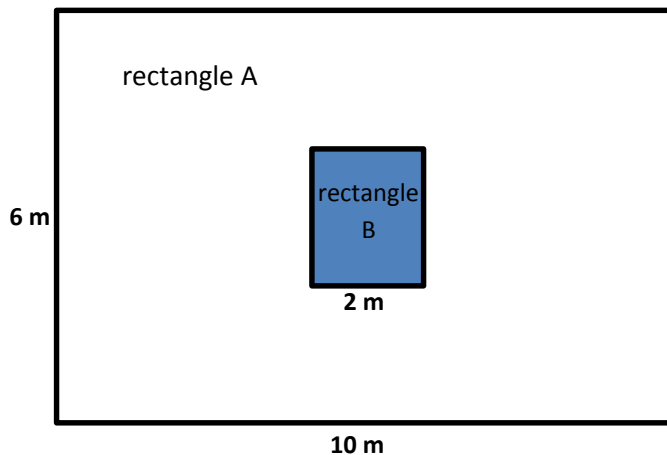


Area of a rectangle =  $(l)(w) = (b)(h)$   
 Area of rectangle A =  $(6ft)(3 ft) = 18 ft^2$   
 Area of rectangle B =  $(10ft)(12 ft) = 120 ft^2$   
 Area of rectangle C =  $(4ft)(3 ft) = 12 ft^2$

Area of a triangle =  $1/2 (b)(h)$   
 Area of triangle D =  $1/2 (3ft)(1 ft) = 1 \frac{1}{2} ft^2$   
 Area of triangle E =  $1/2 (3ft)(1 ft) = 1 \frac{1}{2} ft^2$

Area of the room = area of  $\square$  A + area of  $\square$  B + area of  $\square$  C + area of  $\triangle$  D + area of  $\triangle$  E  
 Area of the room =  $(18 ft^2 + 120ft^2) + 12 ft^2 + (1 \frac{1}{2} ft^2 + 1 \frac{1}{2} ft^2)$   
 Area of the room =  $138 ft^2 + (12 ft^2 + 3 ft^2)$   
 Area of the room =  $138 ft^2 + 15 ft^2$   
 Area of the room =  $153 ft^2$

**#5 Area of the flower bed:**



Area of the flower bed = area of rectangle A - area of rectangle B  
 Area of the flower bed =  $60 m^2 - 4m^2$   
 Area of the flower bed =  $56 m^2$