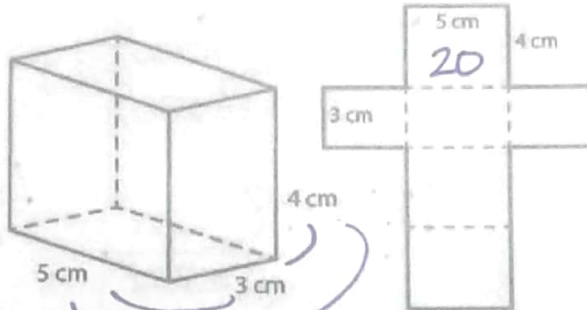


Name: Key

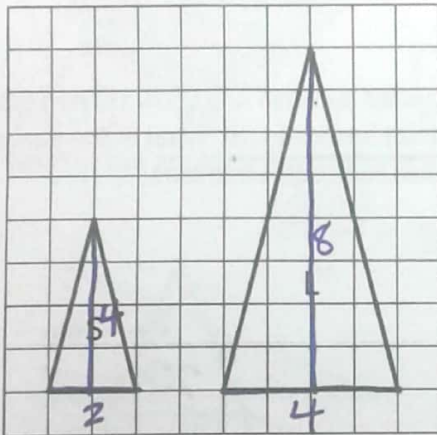
- 1.) The net of the rectangular prism is shown below. What is the surface area, in square centimeters, of the figure shown in the net?



$$2 \cdot 20 + 2 \cdot 12 + 2 \cdot 15 = 94 \text{ cm}^2$$

$$2(5 \cdot 3 + 5 \cdot 4 + 3 \cdot 4)$$

- 2.) What is the area, in square units, of the triangles below?



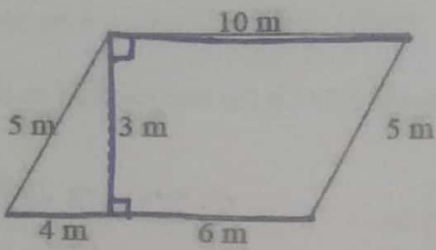
$$S = 4u^2$$

$$L = 16u^2$$

- a.) What do you notice about the change in base and height from triangle S to triangle L?  
 $\times 2$

- b.) What do you notice about the area of triangle S compared to the area of triangle L? Why do you think this is?  
 $\times 4$

- 3.) The measurements for the parallelogram are given in meters. What is the area of this parallelogram, in square meters?



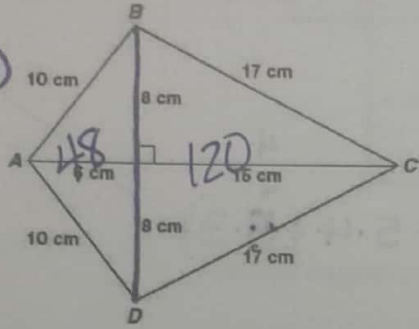
$$10 \cdot 3 = \boxed{30 \text{ m}^2}$$

4.) Jake's joy kite is shown with side lengths labeled. What is the area of his kite?

$\triangle ABD$

$$8+8=16 \text{ (base)}$$

$$\frac{16 \cdot 6}{2} = 48$$



$$120 + 48 = \boxed{168 \text{ cm}^2}$$

$\triangle BCD$

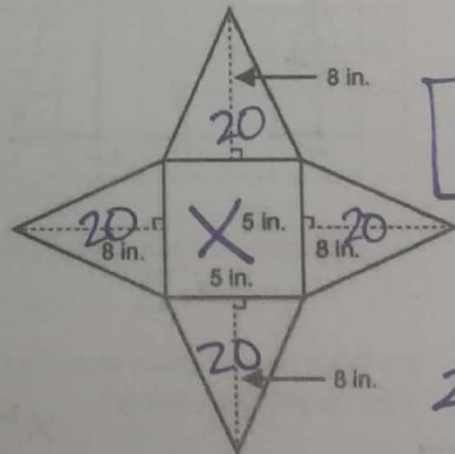
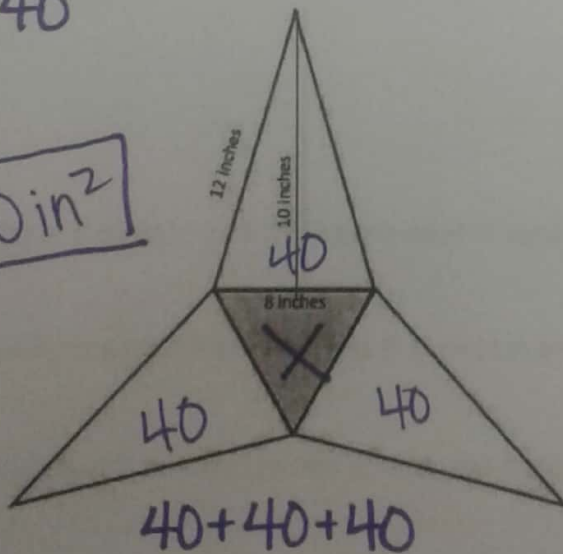
$$8+8=16 \text{ (Base)}$$

$$\frac{16 \cdot 15}{2} = 120$$

5.) The net of a triangular pyramid and a square based pyramid are shown. The pyramids will be constructed by these patterns but it will not have a base. What is the surface area of the faces of each pyramid? Record your answers in square inches.

$$\frac{8 \cdot 10}{2} = 40$$

$$\boxed{120 \text{ in}^2}$$



$$\boxed{80 \text{ in}^2}$$

$$20(4) =$$

$$\frac{5 \cdot 8}{2} = 20$$

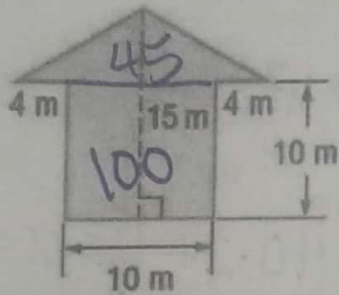
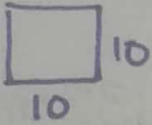
6.) What is the area of the figure below?

$$15 - 10 = 5$$

$$4 + 10 + 4 = 18$$

$$\frac{18 \cdot 5}{2} = 45$$

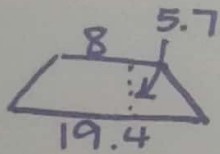
$$10 \cdot 10 = 100$$



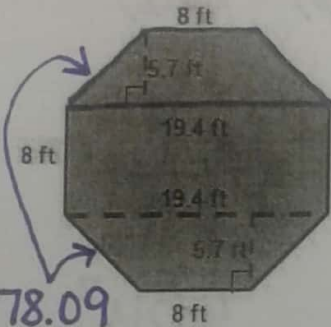
$$145 \text{ m}^2$$

$$100 + 45 = 145$$

7.) What is the area, in square feet, of the figure below?



$$\frac{(8 + 19.4) \cdot 5.7}{2} = 78.09$$

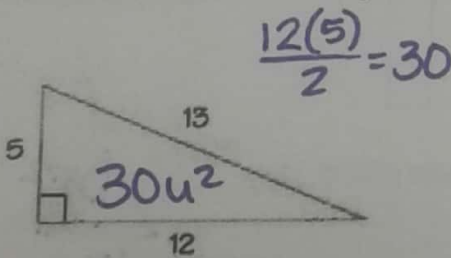


$$78.09 + 78.09 + 155.2$$

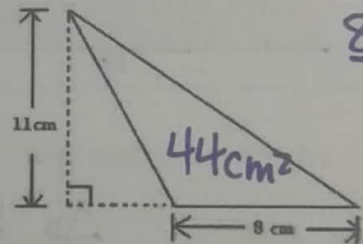
$$= 311.38 \text{ ft}^2$$

$$19.4 \cdot 8 = 155.2$$

8.) What of the areas of the triangles below?



$$\frac{12(5)}{2} = 30$$



$$\frac{8 \cdot 11}{2} = 44$$

9.) What is the area of a parallelogram with a base of 4.5 inches and a height of 6 inches?

$$4.5(6) = 27 \text{ in}^2$$

10.) What is the area of a triangle with a height of 9 feet and a base of 14 feet?

$$\frac{9(14)}{2} = 63 \text{ ft}^2$$

11.) What is the area of a trapezoid with base measures of 6 centimeters and 8 centimeters and a height of 3 meters?

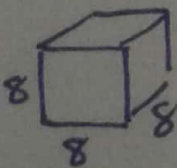
$$3 \text{ m} = 300 \text{ cm}$$

$$\frac{(6+8) \cdot 300}{2} = 2100 \text{ cm}^2$$

12.) What is the surface area of a cube with edge lengths of 8 inches?

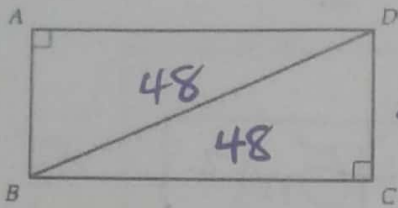
$$64 \cdot 6 = 384 \text{ in}^2$$

13.) If the area of triangle BCD is 48 square units, what is the area of rectangle ABCD?



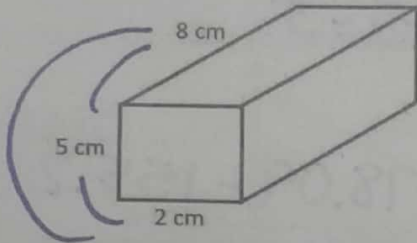
One side:  $8 \cdot 8 = 64$

There are 6 sides  $64(6)$



$$48(2) = 96 u^2$$

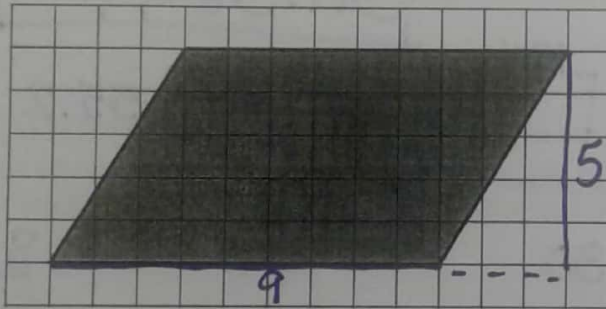
14.) What is the surface area of the rectangular prism?



$$10 \cdot 2 + 40 \cdot 2 + 16 \cdot 2 = 132 \text{ cm}^2$$

$\uparrow$                      $\uparrow$                      $\uparrow$   
 $5(2)$                  $5(8)$                  $2(8)$

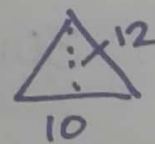
15.) What is the area, in square units, of the shaded parallelogram below?



$$45 u^2$$

2 triangles

16.) What is the surface area of each triangular prism?



$$\frac{10(12)}{2} \cdot 2$$

$$\Delta s \ 588$$

$$14 \cdot 35 = 490$$

$$14 \cdot 28 = 392$$

$$+ 14 \cdot 21 = 294$$

$$1764 \text{ cm}^2$$

$$\Delta s: 120$$

$$14 \cdot 13 = 182$$

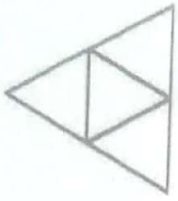
$$14 \cdot 10 = 140$$

$$+ 14 \cdot 13 = 182$$

$$624 \text{ mm}^2$$

17.) Name the 3-dimensional figure that can be created by folding each net.

A



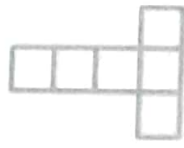
Tri. Pyramid

B



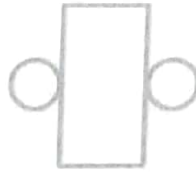
Cone

C



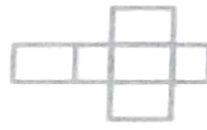
cube

D



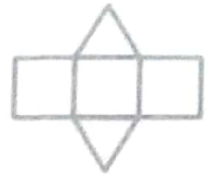
cylinder

E



rect. prism

F



tri. prism