

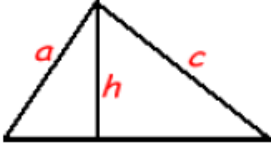
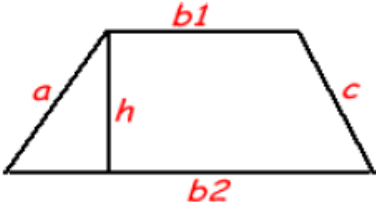
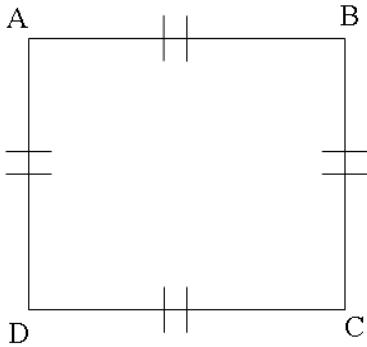


PERIMETER AND AREA

Shapes	Formulas
	<p>Rectangle Area = Length X Width $A = lw$</p> <p>Perimeter = 2 X Lengths + 2 X Widths $P = 2l + 2w$</p>
	<p>Parallelogram Area = Base X Height $A = bh$</p> <p>Perimeter = add the length of all sides $P = 2a + 2b$</p>
	<p>Triangle Area = 1/2 of the base X the height $A = \frac{1}{2}bh$</p> <p>Perimeter = $a + b + c$ (add the length of the three sides)</p>
	<p>Trapezoid Area = 1/2 of the base X the height $A = \left(\frac{b1+b2}{2}\right)h$</p> <p>Perimeter = add lengths of all sides $P = a + b1 + b2 + c$</p>



Questions 1 :

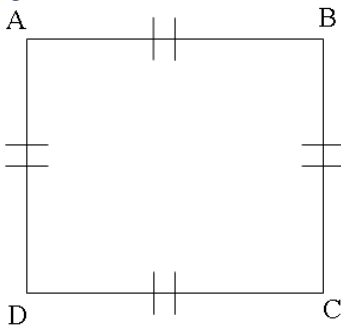


ABCD is a square. If $AB = 5\text{ cm}$, what is the perimeter for ABCD.

Sol:

$$5\text{ cm} \times 4 = 20\text{ cm}$$

Questions 2:



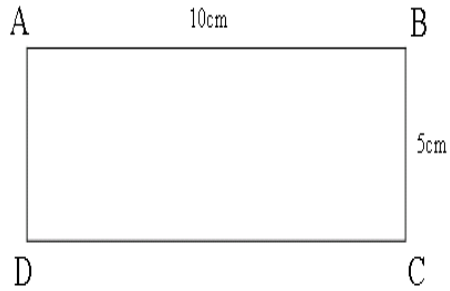
The diagram above shows a square with the perimeter of 28cm. What is the length of AB?

Sol:

$$28\text{ cm} \div 4 = 7\text{ cm}$$



Questions 3:

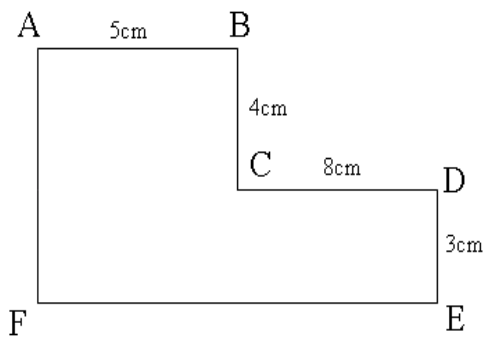


ABCD is a rectangular. Find the perimeter for the rectangular.

Sol:

$$(10\text{cm} \times 2) + (5\text{cm} \times 2) = 30\text{cm}$$

Questions 4:



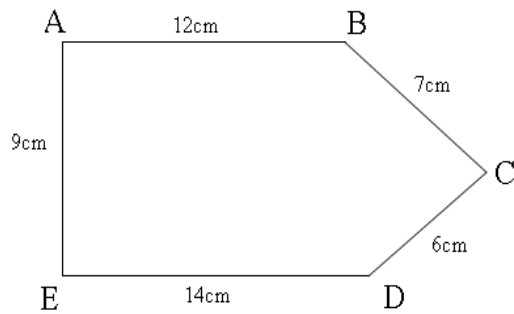
Find the perimeter for the following figure above?

Sol:

$$\begin{aligned} \text{Total Perimeter} &= AB + BC + CD + DE + EF + FA \\ &= 5\text{cm} + 4\text{cm} + 8\text{cm} + 3\text{cm} + (5\text{cm} + 8\text{cm}) + 7\text{cm} \\ &= 40\text{cm} \end{aligned}$$



Questions 5:

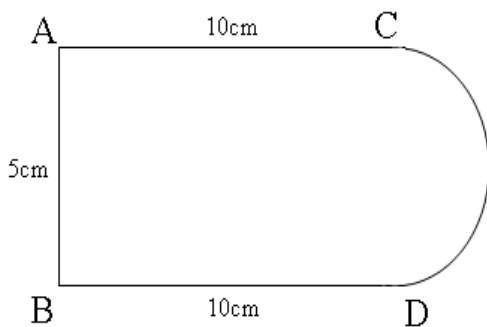


Find the perimeter for the figure above?

Sol:

$$\begin{aligned}\text{Total Perimeter} &= AB + BC + CD + DE + EA \\ &= 12\text{cm} + 7\text{cm} + 6\text{cm} + 14\text{cm} + 9\text{cm} \\ &= 48\text{cm}\end{aligned}$$

Questions 6:

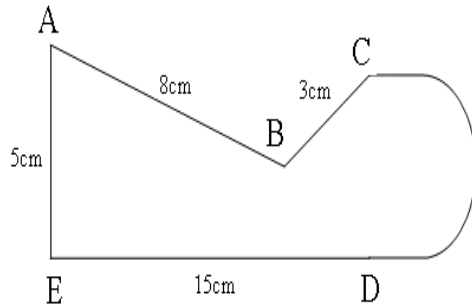


From the figure above, the total perimeter is 32 cm. Find the length for CD ?

Sol:

$$\begin{aligned}\text{Total Perimeter} &= AB + AC + CD + DB \\ 32\text{cm} &= 5\text{cm} + 10\text{cm} + CD + 10\text{cm} \\ CD &= 32\text{cm} - 5\text{cm} - 10\text{cm} - 10\text{cm} \\ &= 7\text{cm}\end{aligned}$$

Questions 7:



For the following figure above , what is the length of CD if the total perimeter is 39cm

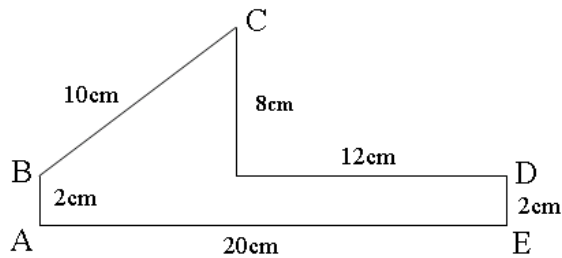
Sol:

$$39 = 5 + 8 + 3 + 15 + CD$$

$$39 = 31 + CD$$

$$CD = 39 - 31 = 8\text{cm}$$

Questions 8:



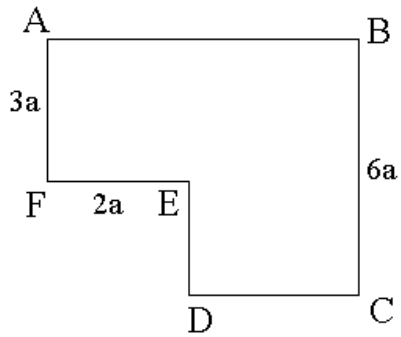
For the following figure above , find the perimeter ?

Sol:

$$\text{Perimeter} = 2 + 10 + 8 + 12 + 2 + 20 = 54\text{cm}$$



Questions 9:



From the figure above, AB is 2 times the length of FE. Find the value of a if the perimeter for the figure is 40cm.

$$\text{Perimeter} = 2FE + 6a + 2a + 2a + 3a$$

$$\text{Perimeter} = 4a + 6a + 2a + 3a$$

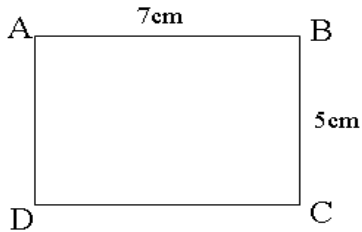
$$40 = 15a$$

$$a = \frac{40}{15} = 3.33\text{cm}$$



AREA

Questions 1:

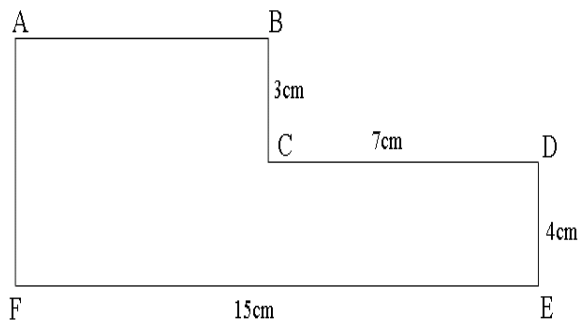


Find the area for the figure above ?

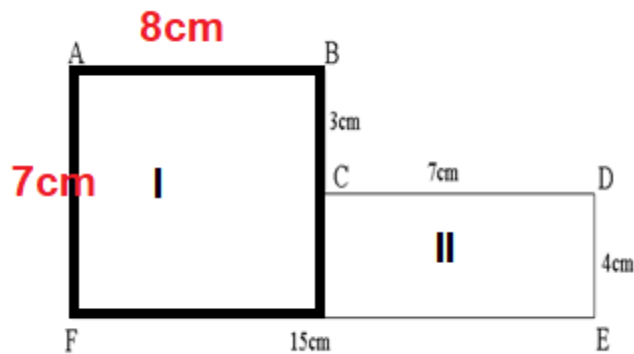
Sol:

$$7\text{cm} \times 5\text{cm} = 35\text{cm}^2$$

Questions 2:



Find the Area for the figure above?



$$\text{Total Area} = \text{I} + \text{II}$$

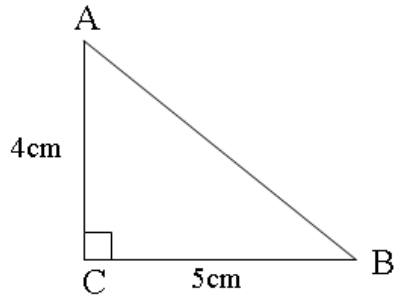
$$\text{Total Area} = (8 \times 7) + (7 \times 4)$$

$$= 56 + 28$$

$$= 84\text{cm}^2$$



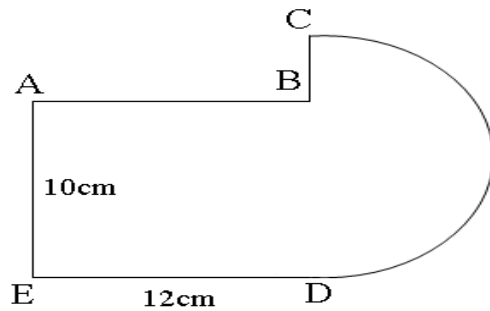
Questions 3:



Find the area for the triangle?

Sol: $\frac{1}{2} \times 5 \times 4 = 10\text{cm}^2$

Questions 4:

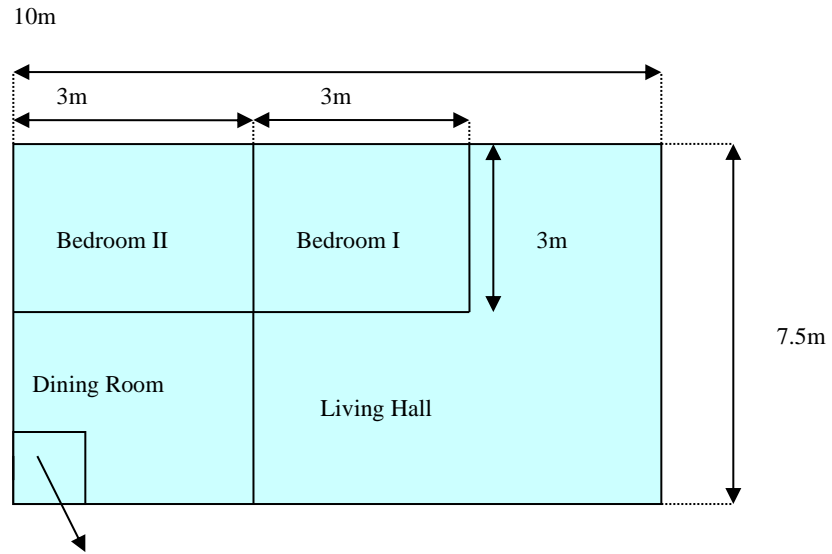


From the figure above, the total area is 160cm^2 . Find the area enclosed by the semicircle BCD.

Sol:

$$\begin{aligned} 160 &= 120 + \text{Semicircle Area} \\ 160 - 120 &= \text{Semicircle Area} \\ 40 &= \text{Semicircle Area} \\ \text{Semicircle Area} &= 40\text{cm}^2 \end{aligned}$$

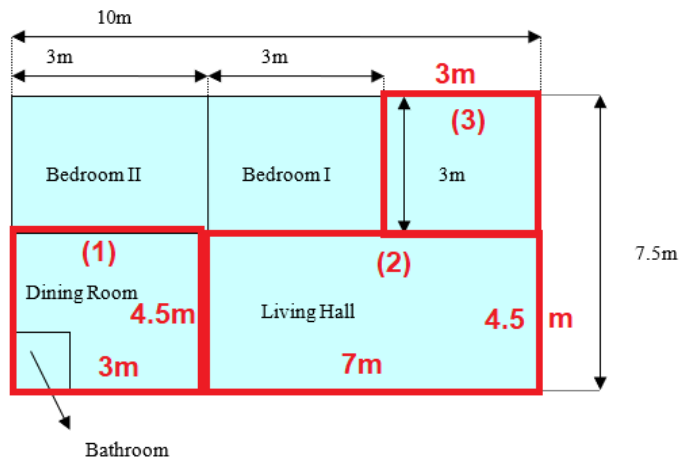




Questions 5:

Mr. Smith works as an architect in SeaView Property. The layout above is one of his latest Summer design for the year 2005. From the layout above, sum the total area for the Living Hall and the Dining Room . (Note: the bathroom has an are of $4m^2$)

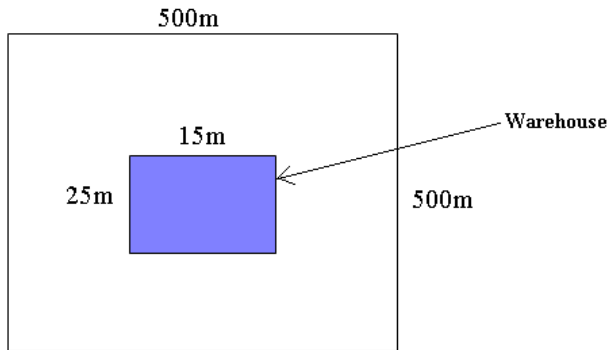
Sol:



$$\begin{aligned}
 \text{Total Area} &= (1) + (2) + (3) - 4 \\
 \text{Total Area} &= (4.5 \times 3) + (4.5 \times 7) + (3 \times 3) - 4 \\
 \text{Total Area} &= 13.5 + 31.5 + 9 - 4 = 50m^2
 \end{aligned}$$



Questions 6:

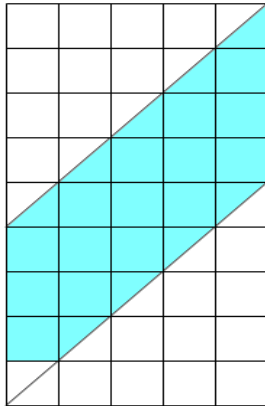


The increasing demand of pineapple in the local market has sparks Mr. Thomas to invest in the pineapple plantation. Mr. Thomas bought a piece of land which has the shape of a square. He plans to build a warehouse in the middle of his new land to stockpile the harvested pineapple. Base on the figure above , find the area for the left for his pineapple plantation ?

Sol:

$$\begin{aligned} \text{Area} &= (500 \times 500) - (25 \times 15) \\ \text{Area} &= 250000 - 375 = 249625\text{cm}^2 \end{aligned}$$

Questions 7:

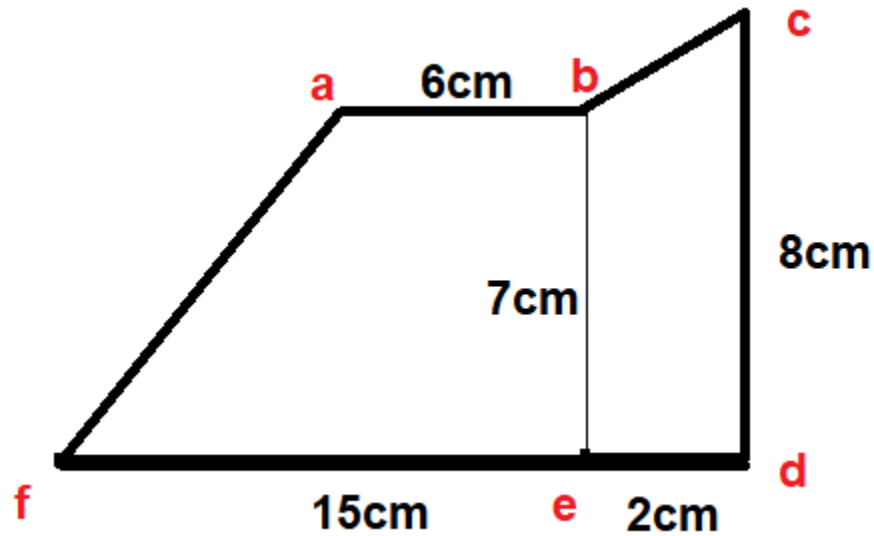


From the figure above, each square has an area of 4cm^2 . Find the total are for the shaded region?

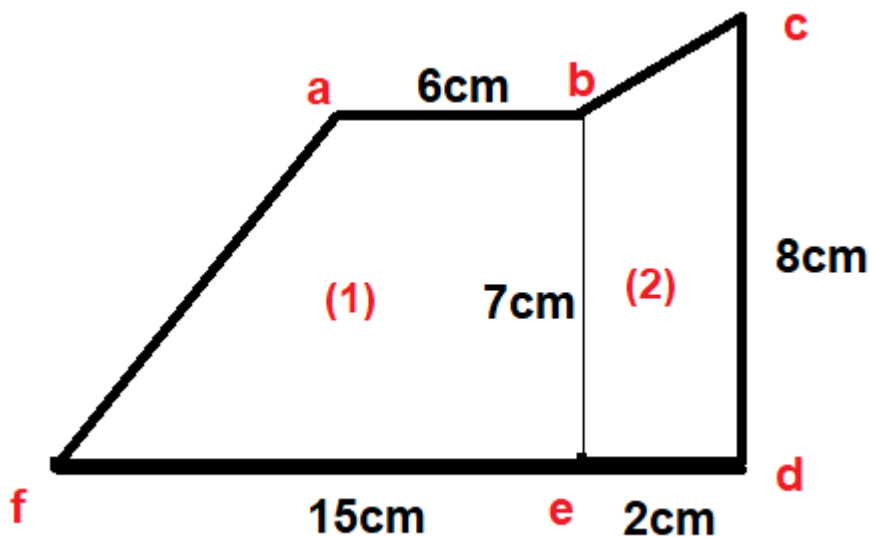
$$\text{Total Area} = (9 \times 2) + (15 \times 4) = 18 + 60 = 78\text{cm}^2$$



Question 8

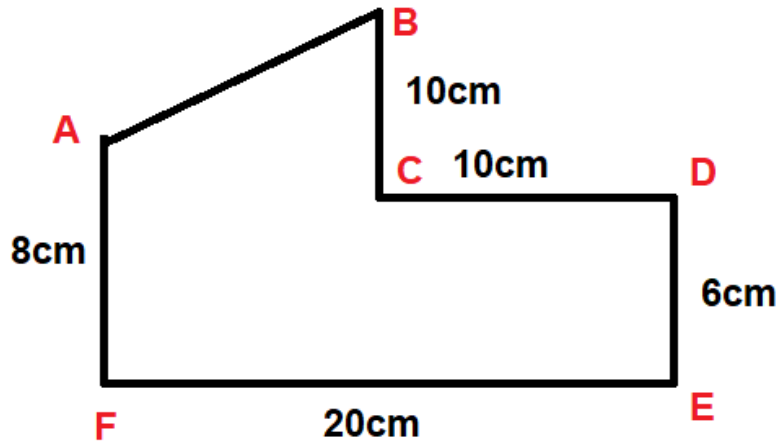


Find the area of the diagram above

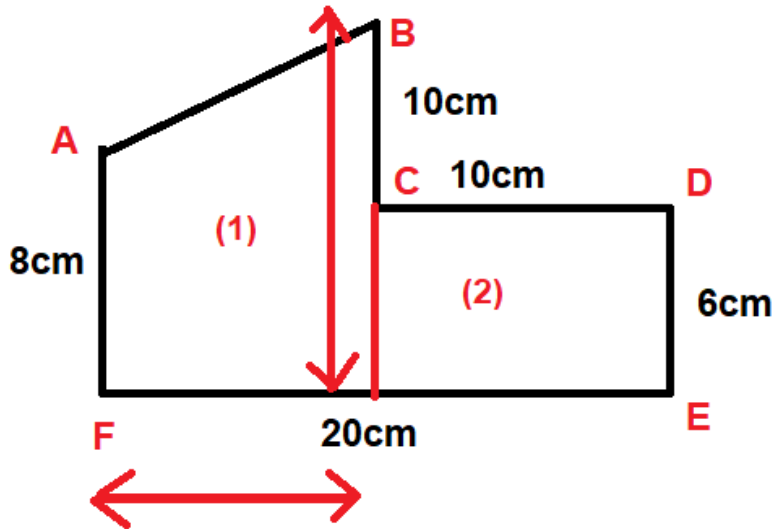


$$\begin{aligned}
 \text{Total} &= \frac{1}{2}(6 + 15) \times 7 + \frac{1}{2}(8 + 7) \times 2 \\
 \text{Total} &= 73.5 + 15 \\
 \text{Total} &= 88.5 \text{ cm}^2
 \end{aligned}$$

Question 9



Find the area of the diagram above



$$\begin{aligned} \text{Area} &= (1) + (2) \\ \text{Area} &= \frac{1}{2}(8 + 16) \times 10 + 10 \times 6 \\ \text{Area} &= 120 + 60 = 180\text{cm}^2 \end{aligned}$$