

Area of Plane Figures.

Choose the correct answer from the following questions

1. Which of the following is the particular formula for finding the area of an isosceles triangle?

a) $\frac{\sqrt{3}a^2}{4}$

b) $\frac{b}{4}\sqrt{4a^2 - b^2}$

c) $\frac{1}{2}(b \times h)$

d) $\sqrt{s(s-a)(s-b)(s-c)}$

2. In the formula $\frac{b}{4}\sqrt{4a^2 - b^2}$ of finding area of an isosceles triangle what does “a” mean.

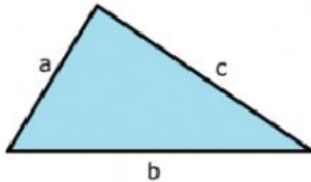
a) Perimeter

b) base

c) vertical angle

d) equal sides

3. What are the area and perimeter of the given scalene triangle?

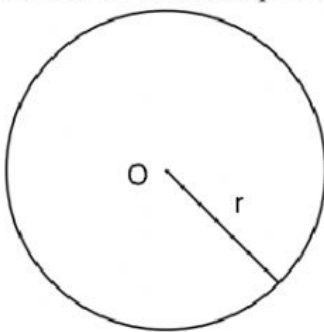


a) Area = $\sqrt{s(s-a)(s-b)(s-c)}$ where, $s = \frac{a+b+c}{2}$, Perimeter = $a + c + c$

b) Area = $\sqrt{s(s-a)(s-b)(s-c)}$ where, $s = \frac{a+b+c}{2}$, Perimeter = $a + b + c$

c) Area = $\frac{\sqrt{3}a^2}{4}$, Perimeter = $a + b + c$

4. Find the area and perimeter of circle.



a) Area = πr^2 , perimeter = $2\pi r$

b) Area = πr^2 , perimeter = $2\pi r^2$

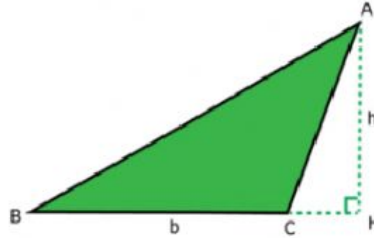
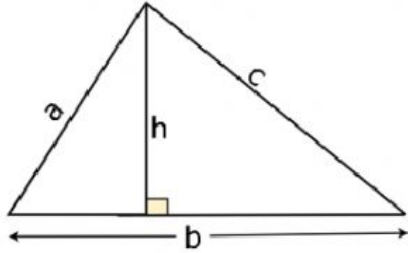
c) Area = $2\pi r^2$, perimeter = $2\pi r$

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5. What is the area and perimeter of given acute angled & obtuse angled triangle.



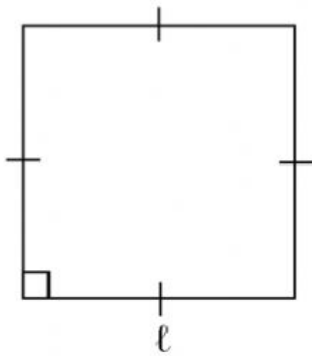
a) Area = $\frac{1}{2} \times h \times h$, perimeter = $a + b + c$

b) Area = $\frac{1}{2} \times b \times b$, perimeter = $a + b + b$

c) Area = $\frac{1}{2} \times b \times h$, perimeter = $a + b + c$

d) Area = $\frac{1}{2} \times b \times h$, perimeter = $a + h + c$

6. What is the area and perimeter of the square whose one side is l unit given?



a) Area = l^2 , perimeter = $2l$

b) Area = l^2 , perimeter = $4l$

c) Area = l^3 , perimeter = $4l$

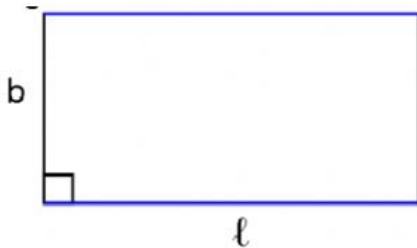
d) Area = l^2 , perimeter = $3l$

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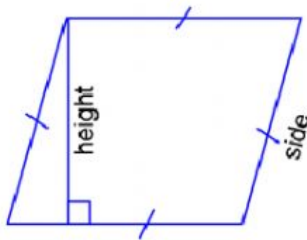
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7. Find the area and perimeter of rectangle whose length and breadth are l & b respectively.



- a) Area = $l \times b$, Perimeter = $2(l + b)$
- b) Area = $l \times b$, Perimeter = $(l + b)$
- c) Area = $l \times b$, Perimeter = $3(l + b)$
- d) Area = l^2 , Perimeter = $2(l + b)$

8. Find the area and perimeter of given rhombus?



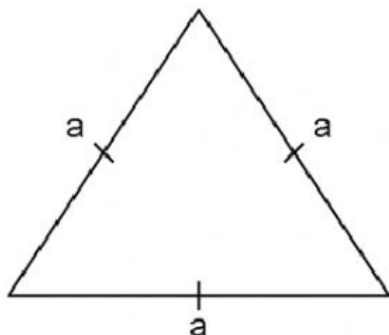
- a) Area = $2(\text{side} \times \text{height})$, perimeter = $4 \times \text{side}$
- b) Area = $\text{side} \times \text{height}$, perimeter = $2 \times \text{side}$
- c) Area = $\text{side} \times \text{height}$, perimeter = $4 \times \text{side}$

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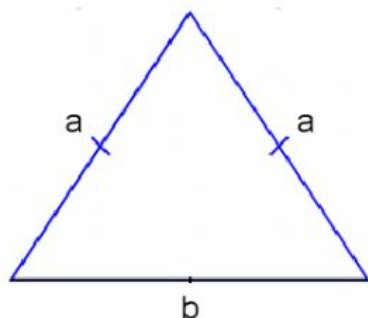
Choose the correct answer from the following questions

9. Find the area and perimeter of the given equilateral triangle?



- a) Area = $\frac{\sqrt{2}a^2}{4}$, Perimeter = $4a$ b) Area = $\frac{\sqrt{3}a^2}{4}$, Perimeter = $2a$
- c) Area = $\frac{\sqrt{3}a^2}{4}$, Perimeter = $3a$ d) Area = $\frac{\sqrt{3}a^2}{2}$, Perimeter = $3a$

10. What is the area and perimeter of given isosceles triangle?



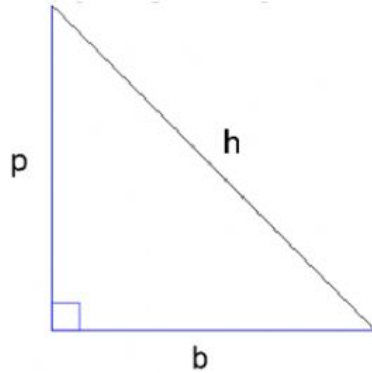
- a) Area = $\frac{b}{4}\sqrt{4b^2 - a^2}$, Perimeter = $2a + b$
- b) Area = $\frac{b}{2}\sqrt{4a^2 - b^2}$, Perimeter = $a + a + b = 2a + b$
- c) Area = $\frac{b}{4}\sqrt{4a^2 - b^2}$, Perimeter = $a + a + b = 2a + b$
- d) Area = $\frac{b}{4}\sqrt{2a^2 - b^2}$, Perimeter = $a + b + b = a + 2b$

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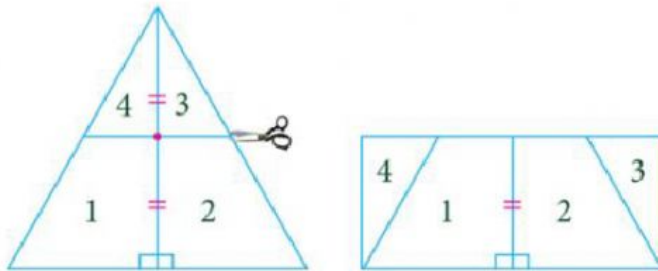
Choose the correct answer from the following questions

11. What is the area and perimeter of the right-angled triangle?



- a) Area = $\frac{1}{3} \times b \times p$, Perimeter = $(p + b + h)$
- b) Area = $\frac{1}{2} \times b \times p$, Perimeter = $(p + b + b)$
- c) Area = $\frac{1}{2} \times b \times p$, Perimeter = $(p + b + h)$
- d) Area = $\frac{1}{2} \times b \times h$, Perimeter = $(p + b + h)$

12. In the given figure, a triangle-shaped paper is cut and a rectangle is formed. The numbers show the piece of papers arranged forming the rectangle. If the base = a and height = b , what are the base and height of rectangle?



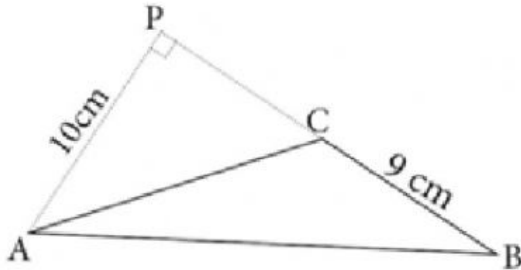
- a) base = a & height = $\frac{1}{2}b$ b) base = a & height = $2b$
- c) base = a & height = b d) base = $\frac{1}{2}a$ & height = b

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Write the correct answer of the following questions in the box.

1. Write the area of $\triangle ABC$ from the given figure.



cm^2

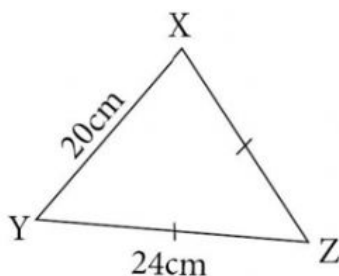
2. Calculate the area of an equilateral triangle whose one side is 4 cm.

cm^2

3. Calculate the area of an equilateral triangle whose perimeter is 18 cm.

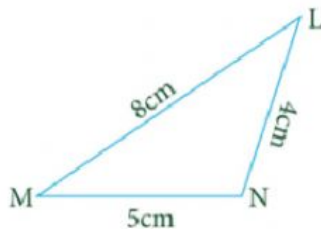
cm^2

4. Find the area of given $\triangle XYZ$.



cm^2

5. Calculate the area of $\triangle LMN$.



cm^2

6. Calculate the area of triangle whose sides are $a = 48$ cm, $b = 40$ cm & $c = 36$ cm. cm^2

cm^2

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7. If the perimeter and any two sides of a triangle are 38 cm, 9 cm and 15 cm respectively.

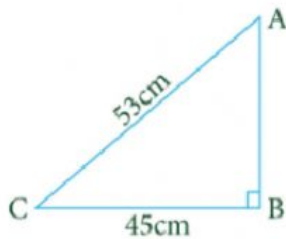
Calculate the area of the triangle.

cm^2

8. The sides of a triangle are in the ratio 3:4:5. If its perimeter is 36 cm, Find its area.

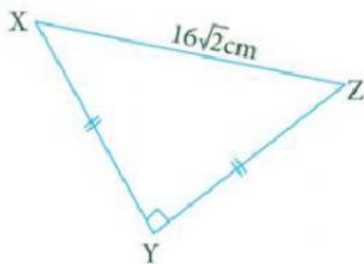
cm^2

9. Calculate the area of the given right-angled triangle ABC.



cm^2

11. Calculate the area of the given $\triangle XYZ$.



cm^2

12. If the area of an equilateral triangle is $16\sqrt{3}cm^2$, find its perimeter.

cm^2

13. Calculate the perimeter of an equilateral triangle whose area is $9\sqrt{3}cm^2$.

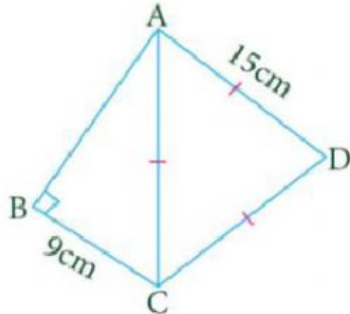
cm^2

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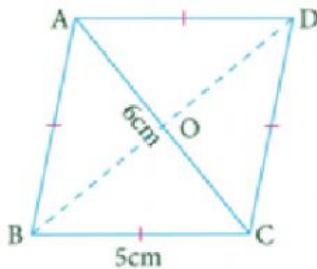
Write the correct answer of the following questions in the box.

14. Calculate the area of the given quadrilateral ABCD.



cm^2

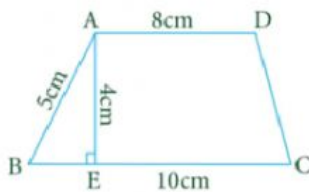
15. In the given fig, ABCD is a rhombus, find the following



a) Area of rhombus ABCD = cm^2

b) Length of the diagonal BD = cm

16. Find the area of the given trapezium ABCD where, $AD \parallel BC$, $AE = 4$ cm, $AB = 5$ cm, $AD = 8$ cm and $EC = 10$ cm.



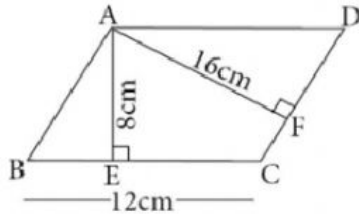
cm^2

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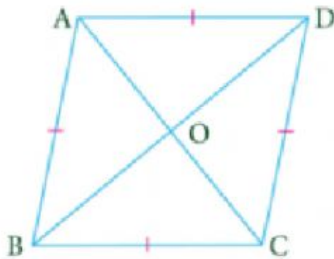
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17. In the given figure, ABCD is a parallelogram, find the following



a) Area of $\square ABCD$ = cm^2 b) Length of CD = cm

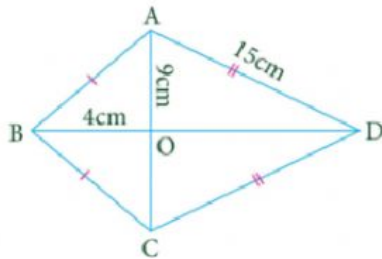
18. Area of given rhombus ABCD is 96 cm^2 . If the length of AC is 12 cm , find the length of



a) diagonal BD = cm

b) BC = cm

19. In the given Kite ABCD, $AD = 15\text{ cm}$, $OA = 9\text{ cm}$ & $OB = 4\text{ cm}$. Find the following



a) Area of $\triangle ABC$ = cm^2

b) Area of $\triangle ABC$ = cm^2

c) Area of kite ABCD = cm^2

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