1. The sides of a triangular plot are in the ratio of $3: 5: 7$ and its perimeter is 300 m . Find its area.
(a) $4 \sqrt{30}$
(b) $8 \sqrt{30}$
(c) $12 \sqrt{30}$
(d) $16 \sqrt{30}$
2. Find the area of a triangle, two sides of which are 8 cm and 11 cm and the perimeter is 32 cm
(a) $1500 \sqrt{3}$
(b) $3000 \sqrt{3}$
(c) $4500 \sqrt{3}$
(d) $6000 \sqrt{3}$
3. Find the area of a triangle two sides of which are 18 cm and 10 cm and the perimeter is 42 cm .
(a) $14 \sqrt{11}$
(b) $21 \sqrt{11}$
(c) $35 \sqrt{11}$
(d) $21 \sqrt{11}$
4. Sides of a triangle are in the ratio of $12: 17: 25$ and its perimeter is 540 cm . Find its area.
(a) 6000
(b) 9000
(c) 12000
(d) none of these
5. The height corresponding to the longest side of the triangle whose sides are $42 \mathrm{~cm}, 34 \mathrm{~cm}$ and 20 cm in length is
(a) 15 cm
(b) 36 cm
(c) 16 cm
(d) none of these
6. A park, in the shape of a quadrilateral ABCD , has $\angle \mathrm{C}=90^{\circ}, \mathrm{AB}=9 \mathrm{~m}, \mathrm{BC}=12 \mathrm{~m}, \mathrm{CD}=5 \mathrm{~m}$ and $\mathrm{AD}=8 \mathrm{~m}$. How much area does it occupy?
(a) $56.4 \mathrm{~m}^{2}$
(b) $55.4 \mathrm{~m}^{2}$
(c) $65.4 \mathrm{~m}^{2}$
(d) none of these
7. Find the area of a quadrilateral ABCD in which $\mathrm{AB}=3 \mathrm{~cm}, \mathrm{BC}=4 \mathrm{~cm}, \mathrm{CD}=4 \mathrm{~cm}, \mathrm{DA}=5 \mathrm{~cm}$ and $\mathrm{AC}=5 \mathrm{~cm}$.
(a) $15 \mathrm{~cm}^{2}$
(b) $15.4 \mathrm{~cm}^{2}$
(c) $15.2 \mathrm{~cm}^{2}$
(d) none of these
8. If the area of an equilateral triangle is $81 \sqrt{3} \mathrm{~cm}^{2}$, then its height is
(a) $9 \sqrt{3}$
(b) $3 \sqrt{3}$
(c) $12 \sqrt{3}$
(d) none of these
9. A rhombus shaped field has green grass for 18 cows to graze. If each side of the rhombus is 30 m and its longer diagonal is 48 m , how much area of grass field will each cow be getting?
(a) $45 \mathrm{~m}^{2}$
(b) $48 \mathrm{~m}^{2}$
(c) $51 \mathrm{~m}^{2}$
(d) none of these
10. The altitude of a triangular field is one-third of its base. If the cost of sowing the field at Rs 58 per hectare is Rs. 783 then its altitude is
(a) 900 m
(b) 600 m
(c) 300 m
(d) none of these
11. A triangle and a parallelogram have the same base and the same area. If the sides of the triangle are $26 \mathrm{~cm}, 28 \mathrm{~cm}$ and 30 cm , and the parallelogram stands on the base 28 cm , find the height of the parallelogram.
(a) 12 cm
(b) 15 cm
(c) 18 cm
(d) none of these
12. Area of equilateral triangle of side a unit is
(a) $\frac{\sqrt{3}}{2} a^{2}$
(b) $\frac{\sqrt{3}}{4} a^{2}$
(c) $\frac{\sqrt{3}}{2} a$
(d) none of these
13. The height of an equilateral triangle is 6 cm , then the area of the triangle is
(a) $15 \sqrt{3}$
(b) $3 \sqrt{3}$
(c) $12 \sqrt{3}$
(d) none of these
14. The area of an isosceles triangle each of whose equal sides is 13 m and whose base is $24 \mathrm{~m}=$
(a) $45 \mathrm{~m}^{2}$
(b) $48 \mathrm{~m}^{2}$
(c) $60 \mathrm{~m}^{2}$
(d) none of these
15. The base of an isosceles triangle is 24 cm and its area is $192 \mathrm{~cm}^{2}$, then its perimeter is
(a) 64 cm
(b) 65 cm
(c) 68 cm
(d) none of these
16. The difference between the sides at right angles in a right angled triangle is 14 cm . If the area of the triangle is $120 \mathrm{~cm}^{2}$, then the perimeter of the triangle is
(a) 64 cm
(b) 60 cm
(c) 68 cm
(d) none of these
17. The base of a triangular field is three times its altitudes. If the cost of sowing the field at Rs 58 per hectare is Rs. 783 then its base is
(a) 900 m
(b) 600 m
(c) 1200 m
(d) none of these
18. The length of altitude of a equilateral triangle of side a unit is
(a) $\frac{\sqrt{3}}{2} a^{2}$
(b) $\frac{\sqrt{3}}{4} a^{2}$
(c) $\frac{\sqrt{3}}{2} a$
(d) none of these
19. The area of the triangle whose sides are $42 \mathrm{~cm}, 34 \mathrm{~cm}$ and 20 cm in length is
(a) $150 \mathrm{~cm}^{2}$
(b) $336 \mathrm{~cm}^{2}$
(c) $300 \mathrm{~cm}^{2}$
(d) none of these
20. An isosceles triangle has perimeter 30 cm and each of the equal sides is 12 cm . Find the area of the triangle in $\mathrm{cm}^{2}$ is.
(a) $9 \sqrt{15}$
(b) $12 \sqrt{15}$
(c) $6 \sqrt{15}$
(d) none of these
21. The height corresponding to the longest side of the triangle whose sides are $91 \mathrm{~cm}, 98 \mathrm{~cm}$ and 105 cm in length is
(a) 76.4 cm
(b) 78.4 cm
(c) 65.4 cm
(d) none of these
22. If the area of an equilateral triangle is $36 \sqrt{3} \mathrm{~cm}^{2}$, then its perimeter is
(a) 64 cm
(b) 60 cm
(c) 36 cm
(d) none of these
23. The base of a right angled triangle is 48 cm and its hypotenuse is 50 cm then its area is
(a) $150 \mathrm{~cm}^{2}$
(b) $336 \mathrm{~cm}^{2}$
(c) $300 \mathrm{~cm}^{2}$
(d) none of these
24. A field is in the shape of a trapezium whose parallel sides are 25 m and 10 m . The non-parallel sides are 14 m and 13 m . Find the area of the field.
(a) $89.4 \mathrm{~m}^{2}$
(b) $89.075 \mathrm{~m}^{2}$
(c) $89.75 \mathrm{~m}^{2}$
(d) none of these
25. A triangular park ABC has sides $120 \mathrm{~m}, 80 \mathrm{~m}$ and 50 m . A gardener Dhania has to put a fence all around it and also plant grass inside. How much area in $\mathrm{m}^{2}$ does she need to plant?

(a) $9 \sqrt{15}$
(b) $12 \sqrt{15}$
(c) $6 \sqrt{15}$
(d) none of these
26. The sides of a triangle are $35 \mathrm{~cm}, 54 \mathrm{~cm}$ and 61 cm , respectively. The length of its longest altitude:
(a) $16 \sqrt{5} \mathrm{~cm}$
(b) $10 \sqrt{5} \mathrm{~cm}$
(c) $24 \sqrt{5} \mathrm{~cm}$
(d) 28 cm
27. If the area of an equilateral triangle is $16 \sqrt{3} \mathrm{~cm}^{2}$, then the perimeter of the triangle is:
(a) 64 cm
(b) 60 cm
(c) 36 cm
(d) none of these
28. The length of each side of an equilateral triangle having an area of $9 \sqrt{3} \mathrm{~cm}^{2}$ is:
(a) 8 cm
(b) 6 cm
(c) 36 cm
(d) 4 cm
29. The area of an equilateral triangle with side is:
(a) $5.196 \mathrm{~cm}^{2}$
(b) $0.866 \mathrm{~cm}^{2}$
(c) $3.4896 \mathrm{~cm}^{2}$
(d) $1.732 \mathrm{~cm}^{2}$
30. The sides of a triangle are $56 \mathrm{~cm}, 60 \mathrm{~cm}$ and 52 cm , then the area of the triangle is:
(a) $1322 \mathrm{~cm}^{2}$
(b) $1311 \mathrm{~cm}^{2}$
(c) $1344 \mathrm{~cm}^{2}$
(d) $1392 \mathrm{~cm}^{2}$
31. The perimeter of an equilateral triangle is 60 m . The area is:
(a) $15 \sqrt{3} \mathrm{~m}^{2}$
(b) $3 \sqrt{3} \mathrm{~m}^{2}$
(c) $12 \sqrt{3} \mathrm{~m}^{2}$
(d) none of these
32. An isosceles right triangle has area $8 \mathrm{~cm}^{2}$, then length of its hypotenuse is
(a) $\sqrt{32} \mathrm{~cm}$
(b) $\sqrt{16} \mathrm{~cm}$
(c) $\sqrt{48} \mathrm{~cm}$
(d) $\sqrt{24} \mathrm{~cm}$
33. A traffic signal board indicating 'SCHOOL AHEAD' is an equilateral triangle with side a , then area of the traffic signal is:
(a) $\frac{\sqrt{3}}{2} a^{2}$
(b) $\frac{\sqrt{3}}{4} a^{2}$
(c) $\frac{\sqrt{3}}{2} a$
(d) none of these
34. The base of a triangle is 12 cm and height is 8 cm , then the area of a triangle is:
(a) $24 \mathrm{~cm}^{2}$
(b) $96 \mathrm{~cm}^{2}$
(c) $48 \mathrm{~cm}^{2}$
(d) $56 \mathrm{~cm}^{2}$

## PERL EDUCATION

1. The sides of a triangle are $3 \mathrm{~cm}, 4 \mathrm{~cm}$ and 5 cm . Its area is
(a) $12 \mathrm{~cm}^{2}$
(b) $15 \mathrm{~cm}^{2}$
(c) $6 \mathrm{~cm}^{2}$
(d) $9 \mathrm{~cm}^{2}$
2. The area of isosceles triangle whose equal sides are equal to 3 cm and other side is 4 cm . Its area is
(a) $20 \mathrm{~cm}^{2}$
(b) $4 \sqrt{5} \mathrm{~cm}^{2}$
(c) $2 \sqrt{5} \mathrm{~cm}^{2}$
(d) $10 \mathrm{~cm}^{2}$
3. The area of a triangular sign board of sides $5 \mathrm{~cm}, 12 \mathrm{~cm}$ and 13 cm is
(a) $\frac{65}{2} \mathrm{~cm}^{2}$
(b) $30 \mathrm{~cm}^{2}$
(c) $60 \mathrm{~cm}^{2}$
(d) $12 \mathrm{~cm}^{2}$
4. The side of a triangle are in the ratio of $25: 14: 12$ and its perimeter is 510 m . The greatest side of the triangle is
(a) 120 m
(b) 170 m
(c) 250 m
(d) 270 m
5. The perimeter of a right triangle is 60 cm and its hypotenuse is 26 cm . The other two sides of the triangle are
(a) 24 cm .10 cm
(b) 25 cm .9 cm
(c) 20 cm .14 cm
(d) 26 cm .8 cm
6. The area of quadrilateral ABCD in which $\mathrm{AB}=3 \mathrm{~cm}, \mathrm{BC}=4 \mathrm{~cm}, \mathrm{CD}=4 \mathrm{~cm}, \mathrm{DA}=5$ cm and $\mathrm{AC}=5 \mathrm{~cm}$ is
(a) $15.2 \mathrm{~cm}^{2}$
(b) $14.8 \mathrm{~cm}^{2}$
(c) $15 \mathrm{~cm}^{2}$
(d) $16.4 \mathrm{~cm}^{2}$
7. The area of trapezium in which the parallel sides are 28 m and 40 m , non parallel sides are 9 m and 15 m is
(a) $286 \mathrm{~m}^{2}$
(b) $316 \mathrm{~m}^{2}$
(c) $306 \mathrm{~m}^{2}$
(d) $296 \mathrm{~m}^{2}$
8. The area of quadrilateral ABCD in the below figure is
(a) $57 \mathrm{~cm}^{2}$
(b) $95 \mathrm{~cm}^{2}$
(c) $102 \mathrm{~cm}^{2}$
(d) $114 \mathrm{~cm}^{2}$

9. A traffic signal board indicating 'SCHOOL AHEAD' is an equilateral triangle with side a , then height of the traffic signal is:
(a) $\frac{\sqrt{3}}{2} a^{2}$
(b) $\frac{\sqrt{3}}{4} a^{2}$
(c) $\frac{\sqrt{3}}{2} a$
(d) none of these
10. There is a slide in a park. One of its side walls has been painted in some colour with a message "KEEP THE PARK GREEN AND CLEAN". If the sides of the wall are $15 \mathrm{~m}, 11 \mathrm{~m}$ and 6 m , The area painted in colour is:


15 m
(a) $10 \sqrt{2} \mathrm{~m}^{2}$
(b) $20 \sqrt{2} \mathrm{~m}^{2}$
(c) $30 \sqrt{2} \mathrm{~m}^{2}$
(d) none of these
11. An isosceles right triangle has area 8 cm 2 . The length of its hypotenuse is
(a) $\sqrt{32} \mathrm{~cm}$
(b) $\sqrt{16} \mathrm{~cm}$
(c) $\sqrt{48} \mathrm{~cm}$
(d) $\sqrt{24} \mathrm{~cm}$
12. The edges of a triangular board are $6 \mathrm{~cm}, 8 \mathrm{~cm}$ and 10 cm . The cost of painting it at the rate of 9 paise per cm 2 is
(a) Rs 2.00
(b) Rs 2.16
(c) Rs 2.48
(d) Rs 3.00
13. The area of an isosceles triangle having base 2 cm and the length of one of the equal sides 4 cm , is
(a) $\sqrt{15} \mathrm{~cm}^{2}$
(b) $\sqrt{\frac{15}{2}} \mathrm{~cm}^{2}$
(c) $2 \sqrt{15} \mathrm{~cm}^{2}$
(d) $4 \sqrt{15} \mathrm{~cm}^{2}$
14. The sides of a triangle are $35 \mathrm{~cm}, 54 \mathrm{~cm}$ and 61 cm , respectively. The length of its longest altitude
(a) $16 \sqrt{5} \mathrm{~cm}$
(b) $10 \sqrt{5} \mathrm{~cm}$
(c) $24 \sqrt{5} \mathrm{~cm}$
(d) 28 cm
15. If the area of an equilateral triangle is $16 \sqrt{3} \mathrm{~cm} 2$, then the perimeter of the triangle is
(a) 48 cm
(b) 24 cm
(c) 12 cm
(d) 36 cm

